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#### DEGENERATION IN FAMILIES

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### DEGENERATION IN FAMILIES

## OBSERVATIONS IN A LUNATIC ASYLUM

BY

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#### OBSERVATIONS IN A LUNATIC ASYLUM

HUMAN society has in its development and progress through all ages submitted to the "Family" theory, which overlies it as a firm and binding network. This has been acknowledged from time immemorial, even as far back as Moses, whose books are essentially of a genealogical character. The Bible states likewise that from the family of David salvation was to spring. When ancient free Greece was at the zenith of her power, her great families either stood forth on the pedestal of glory, or were seen dwindling into insignificance in the way of ordinary mortals. The firmly consolidated Roman community during its rise was based on the power and unity of her families. In ancient Scandinavia family stood opposed to family, and the duty of vengeance was incumbent on each member as a sacred obligation against any member who trespassed on its prerogatives.

It is again the generic idea which reunited and assumed the mastery under the hard rule

of the feudal system and of the nobility in the new community established in Europe, until it finally developed into absolute monarchy -the final triumph of the family. After the dissolution of the old state of affairs, caused by the migrations in the fifth and sixth centuries, the new world had again congregated under the banner of Christianity. Monarchy was now all-powerful, eclipsing in form the most tyrannic periods of the Roman Empire, owing to its ruling families changing so frequently in those days. In more recent times the opposition to this state of affairs has become of vital importance. The struggle against so complete a predominance of the family theory lasted through generations; but natural development and evolution resulted in the family rule obtaining a power hitherto unknown. There was no question whether the individual was endowed with superior talent or highminded; the individual was sustained entirely by his family renown or coat of arms. No one seemed to take the slightest interest whether the individual who was destined to rule the fate of nations was an immature infant, or constitutionally infirm or of unsound

mind, or a poor degenerated irresponsible being. The theory of family had taken such a hold on the human mind that not only did no one oppose it, but it was actually looked upon throughout as a symbol of supreme happiness—as the natural and only valid reflection of a Divine Empire, Heaven itself transferred to earthly relations.

And family prestige gives strength, because it gives unity, from the central scions to its widest extended branches. "Outside of his tribe the Arab is without rights and subject to the arbitrary interference of everybody; within it, he is protected, and knows that every one of the members of the tribe considers him as one of their own" (Buhl: Life of Mahommed). True, it is the individual man who acquires and creates, but it is the family that preserves and solidifies, maintains, fixes and strengthens. Family is the conservative principle that gives firmness and character to the evolution of humanity, that slowly adopts and formulates those ideas which are qualified to live and grow, that makes them thrive and strengthens them and protects them against those hasty and sudden changes, which are

contrary to the nature and feelings of the human organism.

The family is composed of individuals. But as long as these single members do not feel themselves as part of the great community which the family forms, the latter does not exist as an actual power. The family can only be formed through this feeling; but, once formed, any single member will hardly quite free himself from the tie by which he feels himself more or less bound. The individual may break away from the family, may even, under outside influence, place himself in opposition to it; but this very opposition will in itself form a restricting bond, which holds him and makes him to a certain extent a bondsman.

Behind the existing families stands the future generation—mere atoms who have not yet seen the light of day; those families also who seem as yet unconcerned; those groups who are only gradually forming and awakening to a sense of power. This is the soil from which the ever fresh growth emanates which is to take the place of the existing families when they succumb; which is to receive the inheritance, and carry it forward until it grows into

family itself—grows, conquers, rules, and then vanishes.

Throughout all ages, some families have been in possession of an almost unlimited power, and have formed the principal groundwork on which human society has been constructed. True, according to the laws of nature, the sprouting and luxurious underwood grows up and chokes them; but it is not the families, nor the Family idea, that suffer by this defeat only the single particular family. In the course of time attempts have been made to overthrow the importance of the families. Revolutions have brought changes in this respect; it may even be said that every revolution, against whichever power it may have been directed, has always turned against those families who have, according to its inspired authority, been in possession of the ruling power. But the vigorous life, and the importance to the progress of the world, of the families have again overshadowed this. And even if the revolutions have not been without their effects, yet the continuous march of evolution has maintained itself, and carried on its straight course in the form of families.

This is the Family in its glory! But from the oldest traditions we learn that the Family, like everything else, is subject to the law of change; that alongside the progress and splendour of the ancient family run other strings which draw it to its fall and ruin-what nowadays we call its degeneration. Cain is, within the Family, the first instance of this kind. While the race of Adam, according to the legend of Genesis, is elevated to such power and glory that all the world is to be peopled by his descendants, Cain stands as the prototype of the curse of the race. While the progeny of Seth propagates itself through infinite generations, Cain's is extinguished henceforth and for ever. Is this not the same idea that repeats itself in the family of the Atrides with the heavenborn and the earthly children, where the dark and gruesome form of Clytemnestra bodes the dissolution and destruction of the family! And the further we study history, the surer the foothold we gain, the more this experience assumes a definite shape. The Julian Family, once so glorious, ends its days in insanity and crime-laden disaster. During the older mediæval ages the mighty ruling family of the Carlovingians, which at its climax

stood as the most powerful supporter of civilization, ends in weak-minded dissolution. The great English Royal Families, those depicted by Shakespeare in his historical plays, end in either mental weakness, or else degenerate into violent criminal characters. And the same facts repeat themselves everywhere, as the history of every country offers ample material for illustration.

As yet, however, the matter was only broadly understood and taken notice of in its general aspect. The natural order of individual life—growth, maturity, decline—was transferred to the life of the families, and accepted as a universal fact and a law for all creation. The Family theory itself continued triumphant in all its power and glory, and had probably never held greater sway than at the beginning of the nineteenth century.

But after the great flourish with which the French Revolution heralded the advent of a new era, these conditions came to be more and more interfered with. The direct consequence of this event was the Napoleonic rule, which, looked upon from one point of view, was a direct negative to the Revolution and its principles;

seen from another standpoint, however, it was the very perfection and crowning feature of these, inasmuch as it proved the power and strength of the *individual* in the face of the might and traditions of the *family* rule, the inheritance of centuries. The waves of evolution did, indeed, close again over this episode—for it can hardly be called more than an episode—but this grand isolated figure, Napoleon, however much he may have sinned against the prevailing dynastic powers, still stands, as a model and unique example, indelible in the history of the evolution of the human race.

The ring of defence had been breached. The wall which had formerly surrounded existence and secured to it firmness and position had cracked, and was no longer an unassailable entity, but a feature whose worth was, like everything else, subject to doubt and criticism. Formerly, the family theory had been so strong that later generations—when the natural, actual connection had been severed—had attempted to connect themselves to ancient families by adopting their names and family coat of arms. But the nineteenth century, which may be said to be one of the most enterprising and effective

which humanity has ever known, was able to transform the appearance and the conditions of the universe within a very short space of time, and sought and found a by no means unimportant task in undermining and destroying old ideas and traditions, which were encumbering life as a restricting and ruling power, and substituting for them remedial measures. And amongst these new ideas the doctrine of *Degeneration*—of the process of the natural dissolution of the families—is doubtlessly one with which it occupied itself with the greatest interest, not to say with the greatest enthusiasm.

And it may be almost taken as an every-day occurrence that, once a matter has been called into question, searching and critical investigation is sure to arise spontaneously and attack the case, perhaps from sides which had from the first not been considered as bearing on the matter. This also applies here. And the investigation and solution of the question was to come just from one of the innovations of recent times—the modern Lunatic Asylum—such as the humane and democratic view of poor and suffering humanity had recently modelled it.

Formerly the Lunatic Asylums had merely been a defence used by the community for protecting itself against its unruly and unmanageable elements; but from the beginning of the century, when Pinal, in the true sense of the word, broke the chains of the lunatics, the asylum became a defence to the afflicted one, a means of restoring him to health, or, failing this, a home offering him rest and peace from the molestations and misunderstandings of the outer world—constituting, at the same time, a medium for acquiring an understanding of this, perhaps the most terrible of all human sufferings.

And from this new field of observation the doctrine of the degeneration of families started—especially in connection with the famous name of Morel. Thenceforward science did not rest satisfied with the general theory of the evolution of families being subject to the law of change; a more exact and deeper knowledge of the special laws of this process of dissolution was acquired. It was seen that, as certain fixed rules apply to the single individual—whose short span of life makes it easier to follow these—where growth and evolution

are followed by maturity, which again ends in decline and dissolution, so the same law was applicable to the family. It was proved beyond doubt that when a family has reached its climax, it again declines through a certain regular number of generations, until it ends in the process of dissolution, of degeneration, and finally dies out for want of vigour and germinating power. In spite of certain elements, which might seem to destroy, or at least to derange this law, yet the clear lines of its merciless biddings have been so firmly fixed that, although they were met from the first, all over the world, with doubts and protests, they soon gained general and uncontested approval. And it is a sure proof of their having taken effect, of their having struck humanity as a ray of light contributing its share towards the understanding of the whole problem of existence, that this law of the degeneration of the family has during the last generation unquestionably occupied the human mind perhaps more than any other of the great problems of the time, so that it is now hardly possible to open a new book, or to skim a newspaper, without meeting with themes-often in a loose

and misunderstood form—from this, the great tragic master theme of the life of mankind.

It is thus not by accident that this light, which has penetrated into the world, emanates from the Lunatic Asylum. These homes, where certain phases of human suffering have found either restoration or alleviation, offer exceptional opportunities for investigating and measuring this process of dissolution, simply because it is the same organ with which we are here principally concerned which in its pathologic state brings the individual into the asylum, and upon which, on the other hand, the degeneration of the family is contingent. As an individual, the single human being is something by himself: he consists of an agglomeration of organs which hold certain relations to each other, and which in their ensemble determine the nature and character of the individual. As part of a greater communityin the first instance of the family, in a wider sense of the whole human society—the individual is only represented by his brain. On the brain only depends his place and rank within society, be this narrow or wide: all other organs and faculties of the individual are

subject to its guidance. Even sexual life, the other sally-port towards the surrounding world, is, as far as its value to the world is concerned, entirely dependent on the ruling and regulating power of the brain. It is only under the supreme direction of the brain that the other organs gain any importance beyond the life of the individual. Consequently, it is the brain, and only the brain, which gathers the individuals into families. Progeny in itself does not mean family. The family is only formed by means of the comprehending and conscious life which has its seat in the brain.

And, as it is thus the strength or the weakness of the brain-organ that determines the real position of the individual in every one of the manifold relations of life, so it is also ultimately the object of all human knowledge to understand the importance and power of the brain, inasmuch as it is the vehicle of the highest, the psychic, functions of life. The brain in its entirety comprises many other factors, but these only refer to the individual human organism; and the study of their infinetely varied reciprocal relations is ultimately only the connecting-link which is to lead us

to a clear understanding of man in his glorious position as bearer of the human intellect. And this rule applies everywhere. When Nature is investigated in its most hidden recesses, it is, in the first instance, a result of the human brain's never satisfied craving for work, which seeks its field everywhere; but the final object always turns out to be the finding of suppositions, points of view, or comparisons, which may help towards throwing light upon and understanding man's own particular highest vital functions. And when we delve into the ground to search for relics from the civilization of bygone times, it is not, indeed, the things found, however splendid and beautiful they may be, that in themselves awake our most intense enthusiasm; but we are interested in them mainly and chiefly because they supply us with materials for understanding the development in the ages through which the human intellect—that is, the human brain,—has passed. As everything human which has been done, is now, or will be, done on earth is only a result of the human brain's workings, so all our endeavours only tend to subordinate all the world to this power—to reduce the earth to subjection to ourselves—and at the same time to become acquainted with its power and its limitation. But while most other lines only indirectly and by circuitous routes lead us towards this centre, the Lunatic Asylum undoubtedly offers one of the nearest fields of observation for this, the most central of all studies. Here one gets to know the organ directly in its manifold psychical workings—from its wrong side, it is true, in its defective, partly destroyed form; but even thus, light is thrown over its functions and peculiarities.

And in this connection it is just the point to get a clear understanding of human nature in its decline, its degeneration. It is not my intention here to repeat all that has been observed and learned about this matter. It has been so often repeated; I have myself in another publication \* briefly summed up what appear to me the most important guiding lines in this relation. What I am aiming at here is to draw the lines somewhat further ahead, to bring the knowledge of the phenomena

<sup>\*</sup> On the Influence of Heredity in Mental Diseases and A brief Outline of the most Important Groups of Mental Disease.

under a sharper and more definite point of view. I shall not dwell upon the conditions of the individual disease or general state; but by means of the facts as they appear in the asylum, I will attempt to throw light upon them as they manifest themselves in outer life with its rich and varying relations, and try to define the part which they—as far as our defective knowledge goes—appear to play there. I assume the existence of degeneration to be a definite, indisputable fact.

In order to consider the variegated relations of life I then take my starting-point from the Lunatic Asylum, seeing that there is hardly any working field where one has so ample, as well as so easy, opportunities as present themselves there for estimating the importance of the brain and its working, both as far as the individual as well as existence in general are concerned. When one sees the whole chain of these invalids, whether their disease is only of a passing nature, or likely to be lifelong, it is impossible not to notice how an anomalism in this organ isolates the individual from all his natural connections, and displaces his whole existence inside the normal frame of

life, in quite a different degree from that in which the other organs of the body are concerned. There are, of course, differences in degree, of great and far-reaching importance, within these limits. There are mentally diseased persons, about whom it may be said, at least metaphorically, that they are removed from a clear view and a correct perception merely by a shade of colour, a slight variation of light; and there are others, in whose sight the whole firm framework of existence is distorted and disarranged; finally, there are some whose whole comprehension and understanding is so dull and blunted that they are no longer able to recognise the lines and forms of life; but they all standthough in different degrees—as strangers, unversed and uncomprehending towards the actual world and its phenomena.

It is then the value of the individual brain which determines a person's status in life and society. This is, of course, also affected by numerous external relations and conditions; it naturally gives a person widely different bases and starting-points in whichever rank of society destiny may have precipitated him. But the real crux of the matter is ultimately and solely

determined by and depending upon the strength and value of the organism. A brain which works healthily and energetically is capable of attaining anything which lies at all within the limits of possibility. To elucidate my meaning, I again revert to Napoleon I., who promulgated the dictum: "Every man in my army carries a marshal's bâton in his knapsack." Hence external obstacles are of subordinate importance as compared to power inherent in the brain. Seeing that no brain enters life without certain inherited qualities, it will, presumably, even in the most normal state in which it has ever been known, contain a certain amount of onesidedness in its disposition, which in the individual case makes it more fit for the one than for the other of the tasks which life proffers. On the whole, earth can hardly offer a goal which cannot be reached by a brain in possession of its perfect working power. It is therefore the chief economical consideration of this world of ours to keep one's brain-organism in the most perfect order possible. All qualifications for life ultimately depend on this. And as the brain holds all the active power, so it also contains the faculty for carrying the burdens, for composedly bending under the stress of existence. This is also—in inverted image—learned in a Lunatic Hospital.

The brain-I am here only speaking of it as the carrier of psychic life, that is to say, in a narrower sense, the cortex of the brainis an organ like all other organs of the body, intended for taking up certain matters, utilising them and discharging them transformed and burnt through the influence of heat. So far, it does not differ from any other organ of the body. As the digestive tube takes in the alimentary substances and transforms them during their passage, so the cortex takes up and burns its proper aliment, without any active or conscious interference with the process from the individual, although he may be able from time to time to observe its progress, the same as during the process of combustion in the digestive organs. But while these have only to deal with the nutritive matter required for maintaining the private economy of the individual, the stuff which is supplied through the sensory organs to the cerebral cortex is of quite a different nature; but it is burnt like the former, and again leaves the organ in the

form of motory manifestations which appear as speech and action—unless speech is also considered a form of action—the two forms in which the individual asserts himself and holds his own particular position towards the great universe surrounding him. When the supply takes place in the regular manner, and the combustion-apparatus is in proper order, the process also goes on with perfect precision and leads to the proper result; but it is a proof of the infinite variety of life that hardly two brain-organisms are identical in their construction; no more than two faces, however closely resembling each other, are ever quite alike-perhaps from the same cause. Therefore two people hardly ever reason alike. No brain in this world can, indeed, be considered absolutely normal; first, it is a product handed to the individual as an inheritance from his forefathers, his whole family; the peculiarities formed on this basis are undoubtedly transferred to his progeny, and impart to them from the first a special condition which becomes characteristic to them, whether this-to point out a few prominent features-consists in a slow, undeveloped organ, in which the

combustion goes on slowly and with difficulty, yet normally and regularly and with a possibility of attaining the proper result; or in an organ worn out and smoothed down by the work of generations, where the process takes place with irregular facility and produces incomplete and unreliable results; or, finally, in an organ handed down from forefathers in a perverted and mutilated form through actual disease, which continues in their progeny in equally crooked and irregular lines. Next the organism of the cerebral cortex is a result of the individual's own life and development, as it has shaped itself in every previous stage of his existence. These two factors then lead to the result that every brain in the world gets its special particular stamp, although all brains have the same common foundation in their build and their manner of working. During the ever-repeated process of transformation and combustion the brain is strengthened and developed like every other organ which is used in a suitable manner and in accordance with its proper object, and this development becomes apparent partly through increased capacity for work and partly through

its steady and normal operation, which is guided and regulated through the depositing of the innumerable quantity of residues from former processes. Other organs, indeed, show something collateral to this, when trained to always increasing perfection by constant repetition; but in the cerebral cortex it appears in a peculiar manner in the countless multitude of images which remain from former acquirements in the form of memory. These, under the progressive psychical development of the individual, form a correcting material, so to say, which, during the new processes of acquisition which are continually going on in the brain, either attracts and adopts, or, on the contrary, criticises and refuses, in close correlation to what may be said to be the case during the digestion proper; and a certain uniformity and continuity in the psychic digestion of the individual manthat is, his spiritual life and development—are thus produced. He only accepts matter which, to a certain extent, harmonises with the previously developed organism, but refuses and rejects what is foreign, adverse and unpalatable to the results already accumulated. But, of course, both the positive and the negative processes may in themselves act equally in developing the organ as such. And it is beyond doubt that an impression brought to the cerebral cortex may be connected by invisible threads to the already existing foundation of recollected images in such a manner that it is accepted and assimilated with a degree of comprehension which perhaps the person himself would hardly have anticipated or presupposed.

But the brain-organism itself is only the apparatus in which the process of combustion takes place. With its innumerable branchings and details it is an instrument of a variety and fineness absolutely unlike any other in the world, indisputably the masterpiece of nature. It is, in spite of its smallness, like an infinitely large apparatus of combustion in which the numberless quantity of conduits—beyond all human comprehension—are interwoven and depending on each other. Only when every one of these is individually in order, and when the co-operation between them goes on in a perfect manner, does the apparatus work in accordance with its destination. Like all other organs, the brain requires continuous work, demands a never-ceasing supply of new matter and new

nutriment, otherwise it feels unwell and out of order. And the psychic impressions supplied to the brain-organism for nutriment are essentially identical for all individuals. The particular social position of the individual and his conditions of life may, of course, to a certain extent modify the quantity and variety, as well as the quality and nature, of the impressions. A man who lives his narrowly limited life in a monotonous, bare country, who knows no other drink than small beer and milk, sees no other artificial light than tallow dips, and hears no other music than the whistling of the wind and the song of birds, is restricted to far fewer and more simple impressions than one who lives in the great centres of civilization under a manifold influence of much-varied impulses, surrounded by art and music, electric light and rich architecture; and the former probably also burns his material more slowly and uniformly than the latter. But in substance their cases remain similar, inasmuch as the forms of the sensations and of the apparatus of combustion are identically the same in both; only the quantity of fuel and the rate of combustion are different

In order, then, to ensure that this process of combustion results normally-or anyhow approaches as near as possible to the normalit is of the highest importance that the apparatus itself is in order. As regards all other organs it is true that an anomalism of the combustion concerns only the individual himself—perhaps, at the outside, his direct progeny in a single line. But with the brain it is quite a different matter. From the brain connecting threads and tentacles radiate in all directions and in absolutely innumerable quantities into space. Perfect combustion means logical consistency and produces a true result. But-to use a hackneyed metaphor-when, for instance, a chimney is choked up, the natural process will be obstructed in its course, and will perhaps be rendered null and void, without producing the result which it should under ordinary circumstances have accomplished, and which might perhaps have been a valuable contribution to life; or if the regular chimneys and connections have become broken, the materials will, on their road through the organism, be impeded and driven from their natural course, and result in accidents and lack of personal guidance of thought and comprehension, where there ought to have been an even logical evolution, which the disordered apparatus of the deteriorated and eccentric organism is now unable to accomplish; or there may be holes in the several combustion-tubes, so that the smoke on its way through the cerebral mechanism escapes by irregular paths and sideways, which prevents the natural process from attaining its full strength and thoroughness—with all this one gets acquainted in a Lunatic Asylum; for it is just on the different manifestations of these anomalies that the varying nature of mental diseases depends. And thus the faults and defects of the apparatus will, in infinitely varying ways, with physical necessity transform and pervert the natural and even results, derange the normal progress of the process and lead to errors in the reckoning. The innermost and real nature of these faults and defects we are very far from knowing in detail, and we can, therefore, only indicate them metaphorically and figuratively.

And consider what calamities such an error would bring about. The results of the processes going on in the brain extend in all directions into the affairs of everyday life. First,

the organic disorder as it appears in its propagation from parents to children. This means all the hereditary peculiarities of the family, and its final ruin; for, irregularities and abnormities having once gained admittance to the organ, the law-for the studying of which the Lunatic Asylum offers ample opportunities is this, that they propagate through generations in steadily increasing progression—unless, indeed, the attempts to stop them on the way prove successful. The small, and apparently so trifling, divergence in the individual which the surrounding world would interpret as a mere characteristic, as a peculiarity which may even be considered as being to a certain extent original and becoming, may develop into a glaring and fatal abnormality in the following or next following generation. The irregularities in the cerebral functions must in such cases be considered as due to actual organic or functional disturbances of a permanent nature, and likely to develop further from generation to generation. These are the longitudinal lines as they extend downwards through the family. But also as far as the purely psychical relations are concerned—as the consequences spread

transversely, if I may say so, into the surrounding world—these are seen to be of most vital importance. Take, for instance, some person who stands as the centre of a circle, be it large or small; to what extent may not an abnormal disposition, a divergence from the healthy and even reasoning in such an individual, work havoc all through life amongst his surroundings! See how he can, through everlasting unreasonable demands, through tyrannical ruling, through misunderstanding and blindness to natural and reasonable claims, hamper and oppress abilities which might in themselves be of great value; see how he may create harshness and bitterness, which perhaps from his nearest surroundings spreads into wider circles and propagates the hampering and oppressive effects by paths unmeasurable and incalculable! Or, vice versa, see how the loose, jumbled, weakened and confused reasoning of a single central figure may spread these qualities to an unlimited extent. In such cases one must surely believe in both a repressing and confusing influence, which, through an ever-continued and maintained state of exaltation, may produce actual pathological transformations in the cerebral organisms of

the surrounding persons, as well as in purely psychical impulses, which, perhaps without leaving any lasting and evident traces in the existence of any single individual, yet act in a disturbing manner on all the actual conditions of life around him, and make life a burden to him. See how an author of an abnormal and perverted mind may through books or newspaper articles spread dubious and half truths, or perhaps even actual untruths, which again propagate, like seed-corn, through generations and ignite in susceptible brains devoid of resisting power, often, perhaps, when their origin has been long forgotten. For how much evil was not such an institution as absolute monarchy at frequent epochs in history responsible! How often has not an arbitrary whim of a degenerated individual—the progeny of a perhaps deeply debased family hastening towards its inevitable dissolution—as being the command of a ruler, or perhaps only as a mere fatuous fashion which caught and excited others to imitation, brought confusion or mischief into the normal ways of reasoning or the conditions of life, and made them harsh and intolerable to innumerable individuals and whole generations! The ways towards dissolution and confusion which may radiate from a single centre are innumerable—and they are all due, all may be traced back, to the irregular or imperfect power of action or manner of action of the individual brain. For this reason every individual must look upon his own particular neglect of the laws of morality and religion not merely from his own personal point of view, but from that of the whole family.

There is another law, for the observation of which the Lunatic Asylum offers opportunities, that is the different speed at which the cerebral development or retrogression goes on. This may already be traced in the mental diseases themselves; these, on the whole, develop and take their course with remarkable slowness. Some forms may even be mentioned—I am here especially thinking of diseases originating from contusions of the cranium—which may be gathering or forming secretly for years before developing into pronounced diseases, the transitory state being yet distinctly marked by vague and insidious symptoms through which the connection between cause and effect may be traced. This is still more noticeable when, having lived through a long period amongst the mentally deranged in an asylum, one collects one's impressions of its inmates as they appeared thirty years ago and as they appear now. It can scarcely be disputed that there has been no other century-and this would particularly refer to the latter third of the century with which I am especially dealing here-during which the development of the world has proceeded with such precipitate haste as during the last. The multifarious new applications of the powers of nature have inaugurated a movement which is day by day making the world smaller and easier to overlook. The class of people—just those who more than any other class fill the Danish Lunatic Asylumswho fifty years ago used to live their own little isolated lives about in the more or lesssecluded tracts of the country, with a narrow horizon around them on all sides, and ears closed to the great movements of civilization, are now all being carried along by the mighty tide of the progressive age; every day they have the great events of the world served up to them through their newspapers, they take a part in political life, travelling has

become a comparatively easy and commonplace luxury to them, and one need only see the readiness with which they undertake the writing of letters to perceive that the use of their cerebral powers is advancing. Still it is a constant cause for astonishment to see how slowly and gradually this development goes forward, how clumsily and tardily they set about things, how prejudiced and earthbound they continue in their private and local views and interests. But even looking into the centres of culture, from where the new civilization may be said to have emanated and developed, one still finds ample indications of the same dilatoriness. It is certain that the brain as an organ may be trained into increased agility and promptitude in performing the work so as to assimilate the new matter with greater facility; but even trained and developed brains take comparatively long to master a matter in such a way that they may be truly said to have appropriated it and adopted it for practical use. In this connection it may, for instance, be called to mind how a literary phenomenon such as Henrik Ibsen has, through about a third of a century, offered grand problems to the world to solve; and how slowly he has prevailed and gained appreciation, both in life and on the stage, for works which at their first appearance were met throughout with misunderstanding and protest. Only by slow degrees have his ideas gained general comprehension, until they have finally come now to be used as household words. In the same way it also takes a long time for the brain to dismiss old, deeply rooted beliefs and convictions—the process of political development in Denmark during the last generation offers ample proof of this-but the same may be taken to hold good as regards the political, social and whole spiritual evolution of any society, as well as for the individual man. It is presumably by this means that the whole rate of speed, if I may so call it, of the world is regulated and fixed; so that as a rule it goes on in an even jog-trot, instead of proceeding headlong and by fits and starts, which would be absolutely contrary to the nature and habits of the healthy cerebral organism.

But when the breach occurs through morbid degeneration, the conditions become entirely altered. What has been gained through the incessant and persevering labour of ages, per-

haps of centuries, is lost in the collapse of decades. The Lunatic Asylum can most clearly bear testimony to the possibility of following, from one generation to another, the most conspicuous changes in a retrograde direction; and it is a rule, first propounded quite empirically by a French physician—Campagne—a century ago, that a family only needs four generations from its flourishing climax to dissolve, collapse, and die out. This is probably, on the whole, true, even if this law is not always quite so strictly carried out. And it holds good not only when an outside power, as for instance disease, attacks the family, but also when the latter submits to the law of nature—age—and disappears.

It is consequently of the utmost importance to the individuals as well as to the families to keep their cerebral apparatus in order. It may be said that everything in the world is at bottom dependent on this condition. It may, of course, happen that it does not meet the individual in the form of what we are in the habit of calling happiness, as seen from an outside point of view. Those persons whose organism works the most powerfully and with the

greatest possible perfection are perhaps thereby a horse's head in front of their contemporaries, and perhaps for that very reason their ideas are uncomprehended and incomprehensible during their own lifetime-unless they live long enough to allow the times to overtake them and make them contemporaries. But this is an exceptional case, and is not the point. The working out of the great, valuable problems, and the feeling of the work proceeding evenly and naturally through one's brain, the feeling of being allied to the general evolution, is, I think, a great happiness in itself, perhaps the very climax of happiness. Therefore the man who has his cerebral functions in the most perfect order may surely be considered not only the strongest, but also the most happy.

But—as mentioned previously—I do not intend, in this connection, to speak about the individual, his strength or his weakness—leaving this theme for future consideration. I have dealt with this myself in another publication, \* and attempted to depict the difficulties and dangers which human life itself in its

<sup>\*</sup> A brief Outline of the most Important Groups of Mental Disease.

evolution forces upon the individual during his progress through existence all the way from the stirring transformation of the age of puberty up to the sombre close of senility. I am now going to consider the difficulties of the individual as a member of the family. I will attempt to describe the psychic inheritance, as it shows itself during its propagation from one generation to another, in a somewhat more searching manner than the broad and general outlines with which we have, till now, had to be content.

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As has already been said, psychic inheritance is eminently bound up with bodily inheritance—that is, with changes within the cerebral organ itself. If there is, perhaps, another form of this inheritance, which may be supposed to be apart from bodily relations, and generally only conveyed through education and example—a theory of which, however, I am rather sceptical—it is, anyhow, not what I am thinking of at present. Besides, an inheritance of that kind would not necessarily be dependent

on consanguinity, but might as well be the result of outside influences. In this connection I am only dealing with family inheritance. And where such a psychic transfer shows itself within the family, I believe that its foundation will be generally found to be the consequence of organic inheritance. It is, consequently, only this latter that I am speaking of.

It is my conviction, formed during my attendance in the Lunatic Asylum, that psychic inheritance may be transferred in many various ways. My attention has been drawn to conditions which repeat themselves so frequently that it is impossible to help thinking that there must be some connecting principle. I am here thinking of great sufferings which universally afflict mankind, such as Lues, Scrofula, Phthisis and Cancer, which are of comparatively frequent occurrence in the antecedents of some of the patients. I have tried to find a means whereby a light might be thrown over the relation between these sufferings and the psychic degeneration out of the materials at my disposal; but I have been unable to do so. The information has been too diffused and

casual, and the actual circumstances not sufficiently cleared up. I have not been able to place such confidence in the reliability and precision of the information on which I have had to form an opinion that I might venture to make it the foundation of decisive conclusions. Another point the investigation of which might also be tempting, so much the more as it has from time immemorial been considered important in this connection, is the question of close relationship between the parents of the patients; although, however, a good deal of information referring to this is available, it is yet, almost without exception, mixed up with many other weighty and important factors, and the number of instances is, I believe, hardly sufficient for supplying an adequately sifted material as a foundation for an investigation. I have, therefore, been necessarily confined to a narrower basis, to a small series of those, so to say constant, figures which a Lunatic Asylum presents; to conditions which, through their continual occurrence year by year, month by month, make one absolutely sure of standing in the face of facts whose importance is indisputable, and which, besides, in the space

of years, accumulate to such ample proportions that they offer the opportunity for a critical investigation and selection; of rejecting doubtful cases and restricting oneself to the clearest and most significant ones, which still remain in such a number, absolutely seen, as to be in any case acceptable as testimony in the inquiry.

When yet, after many years' experience, I refrain from totalling up very big figures under any item, it is owing to the consideration that this kind of investigation cannot, according to its nature, be based on more or less inadequate and casual information, but such questions as are put must be formulated in a distinct manner, and with a view to this particular object, if the replies are to be considered reliable. For this reason I have not felt justified in using the entire large material of several thousands of cases which I have at my disposal; but I have, during the shorter span of the last few years, attempted to collect and as far as possible sift any reliable material. In preparing this work, with a view to throwing light on the fine threads which connect the families, the misgiving impresses itself upon one that it is not easy

to account for the varying influences, but that in the great majority of cases so many interwoven and entangled factors intrude themselves that the matter becomes very much complicated. And this is surely quite correct. Yet it is no doubt feasible in each separate case to obtain an important material by means of an, as far as possible, penetrating and careful investigation, according to circumstances. I doubt whether it is possible to get any nearer the problem. There will always be something wanting; but as one goes on working on a matter so difficult of solution, one thing strengthens one's confidence of being on the right way, and that is, that the results, the summing up, as I am now going to try to account for them, appear so coherent and reasonable that, on looking backwards, one feels confident as to the correctness of the starting-points.

As I have stated, I am only able to work with a small array of facts; but I consider these to be not without significance. First there is the factor which has for many years been acknowledged and established as especially important to the whole problem, viz. the inherited mental disease, or, more correctly, the inheritance from

mentally diseased ancestors. Until now, only this idea has really been considered; it is principally from this general point of view that such results as are as yet to hand have been arrived at. But I believe that a Lunatic Asylum offers opportunities for viewing the matter from several other standpoints. I have, therefore, tried, alongside of this phenomenon, to find, from the material at hand, other parallel ones, and my attention has thus been drawn to two, generally speaking, somewhat amply represented forms, viz., the inheritance from epileptic ancestors and the inheritance from a family subject to alcoholism. As already said, it may often be very difficult to unravel these sometimes interwoven conditions, as these different inheritances may be closely connected within the same family; thus, dissipation in drinking is so very often, in the antecedents, combined with mental disease; it may be said to be almost a standing occurrence to be told that one parent was suffering from melancholy, while the other was addicted to drinking; most often it is the father who is the drunkard while the mother is melancholy—but the reverse may be the case. As a rule, it is probably a

case of reciprocity, seing that either the drunkenness of the father is the original cause of the melancholy of the mother, or else, vice versa, that the constant melancholy and testiness of the mother has driven the father away from home and on to the incline which, in Denmark at any rate, generally leads to drinking. The relations between drunkenness and epilepsy are generally somewhat different, seeing that these factors so often occur simultaneously in the same individual; amongst the lower classes, at any rate, epilepsy is very often connected with drunkenness. But whether the one or the other be the case, whether the inheritance is a combination of the maladies of both parents or is crossed in the same individual, the question of inheritance of course gets confused, and I have, in consequence, to the best of my ability, tried to eliminate all such cases and leave them out of consideration. And as regards questions like drunkenness and epilepsy, I do not think it difficult to obtain clear and reliable information, because both these factors are, even to the laity, so obvious and evident that the information on which one has to depend is generally pretty reliable.

As to inherited mental disease, the case may be more difficult. This definition may comprise so many shades, from the most aggravated and conspicuous malady, whose existence cannot be doubted, because it demands imperatively the removal of the patient from home and his being placed in an asylum, down to the more mild and lighter degrees, which may in themselves be just as fatal, as far as heredity is concerned, as the violent forms, although they may be so insidious and latent that sometimes they are not rightly estimated by noncomprehending surroundings. Still, it must be acknowledged, on the whole, that the comprehension and understanding of the forms and nature of mental diseases have during the last age spread very much throughout the broader classes of the population, which is not to be wondered at, seeing that it is a phenomenon which interferes so strongly with the ordinary conditions of life, besides being frequently treated of in literature and newspapers; and it has occurred to me how often, during later years-in contradistinction to former timesthe question has been put to me, verbally and by correspondence, whether the patient is

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suffering from "hereditary" disease; it even appears to me that many people have an idea that heredity is especially connected with mental diseases, which may, indeed, often be correct.

Looking, then, first at the group which has a disposition to mental disease, in a general way of speaking, this having occurred among the ancestors, this description involves a whole series of various forms of disease, for which it is altogether impossible to account in each individual case; the information about the maladies of the parents is as a rule given in terms much too general for this purpose, as for instance "mentally diseased," "melancholy," or the like; and those about whom more definite information is obtainable are too few in number for presenting any result worth mentioning. Neither is that the main question in this connection; the investigation of the forms under which mental diseases are transferred from generation to generation comes within the sphere of special psychic problems. The question here is, how these inheritors range as members of the generations, what predispositions they carry with them into their lives. This is, then, a small group of individuals who are direct descendants from either mentally diseased parents, or, in a few cases—skipping over one generation, as happens not infrequently with mental diseases—grandparents, and in whom, to my thinking, this phenomenon forms the only foundation of the inheritance.

I have collected in all forty-seven such cases, comprising both men and womensixteen men and thirty-one women-a relative proportion which I take to be quite incidental and without any significance. Of these fortyseven patients, ten have the disposition to mental disease solely from the father, twentyeight from the mother, while in three cases both parents were mentally diseased. In three other cases the disease was inherited from the grandparents on the father's side, in two from those on the mother's side, and in one single case the grandparents on both sides were mentally diseased. Of course, mental disease has also been traced in several families in the lateral lines, brothers and sisters or more remote relatives on the same side; but that does not count in this connection where we

have only to deal with the influence of the disposition on the individual.

Looking, then, first at the innate abilities and intelligence of these individuals, partly as stated by their relatives or connections at their admission, partly as I have myself had the opportunity of observing them during their stay in the asylum-eventually also after their recovery—there are two about whom absolutely no information has been obtainable; neither have I been able to form any well-founded opinion about them. Out of the remaining forty-five, twenty-eight have been stated to be of "common" or "ordinary" ability, without having, generally speaking, evinced any special feature of the nature of their ability worth mentioning. Only in reference to eight persons it has been said that they were "well gifted"-this expression could, however, as I became acquainted with them, only be taken to mean a certain, quite ordinary liveliness and quickness in grasping such matters as are generally laid before the plain, more or less educated, class of people in Denmark, without any one of them having been known to raise himself above the level where he had originally been placed. In nine other cases "poor abilities" or the like was given, a description which may be taken also to cover a small group of varieties, without however reaching down to as far as imbecility proper. What thus characterises this series of individuals as regards innate abilities may be termed the ordinary, the characteriess. Of course there may be nothing to prevent also more characteristic forms originating from these antecedents; but this probably must be rather considered as those exceptions which cannot be made the foundation of any rule.

The situation of these individuals as far as their abilities go may also be regarded in relation to those intellectual qualities which are commonly popularly called their personality, natural disposition, entity, character—what might perhaps be more distinctly called their "mind," seeing that this term connects the phenomenon more to its deepest foundation, the peculiar condition of the brain, the organ, while the other terms rather make one think of that base as prepared through education and development. In thus classifying these individuals according to this point of view, I find that they—except four

cases which I am obliged to leave out of count owing to lack of information—in sixteen cases are described, by constantly recurring words, as "ordinary," "inoffensive," "good-natured". Here I am obliged to trust almost exclusively to the information given by their surroundings, not to my own observation, because just such qualities may change and vary considerably during the course of a mental disease. The remaining twenty-seven individuals, which are marked by more positive characteristics, form themselves into two groups which are quite evenly represented, fourteen patients being described as "gloomy," "quiet," "reserved," "shy," "uneasy," in a couple of cases with a more pronounced splenetic stamp, while the other thirteen are grouped around the descriptions of "lively," "easily moved," "changeable," "restless," "impetuous," "silly," "obstinate," or "difficult". These two main groups simply define the two outer wings of the territory of the mind, the abnormally stagnant, and the too movable—the retardation and the acceleration—as they are ever repeating themselves within the range of mental diseases. Looked upon from this point of view, the matter, as you see, does not present anything remarkable or striking.

Thus, there is not amongst all of them one single case of any specially prominent peculiarity of the kind which one is, nowadays, inclined to combine with the idea of psychical inheritance, not a single special or irregular intelligence, scarcely some small lack of equilibrium in the disposition; there may be cases of one or another having a special talent for ciphering, or the reverse; but, beyond such trifles, nothing whatever is to be found. Not a single case of crime of any sort can be stated amongst these individuals; not even excesses or extravagances of any greater importance.

Neither can anything specially characteristic be stated as regards the form and course of the diseases; acute diseases with a favourable issue are met with, as well as heavy, chronic, in part incurable diseases, and moreover with approximately equal frequency. Out of the forty-seven cases, twenty-seven were thus acute, curable forms, the remaining twenty heavy and chronic—also in this respect uncharacteristic generality. And the whole phenomenon was of this nature, that, on the whole, it only

related to the Lunatic Asylum, and did not, as a factor of farther-reaching importance, extend into great universal life and its relations.

Passing from this, in a more narrow sense, "mentally diseased" degeneration on to the other groups, I shall first consider the potationary inheritance, as the one most closely related to the above-mentioned form. But, even if this be the case, it will soon be seen that the two groups present characteristics and types of very essential diversity. I have here collected material of altogether forty-four cases where intemperance appears to have been the sole distinguishing point of the antecedents. Of these forty-four individuals twenty-four are men and twenty women. In forty-two cases their inheritance is derived from the father alone and in two cases only from both parents. Looking now at the form in which the disease has been transferred to them, the result is considerably different from the inheritance from mental disease, seeing that in only five cases is there question of an acute, curable mental disease, while in two other cases continually recurring diseases present themselves which have repeatedly brought the patients to the asylum, until they have finally stayed there for good. In the remaining thirty-seven cases it has only been a question of very serious chronic psychosis, which may be said to have settled the fates of these people for life already at the first attack. Even if in a couple of solitary cases it has been possible to bring about so much improvement in their state that they have been able to leave the asylum, it has been always for a short time only; society has quickly again felt aggrieved by having these individuals amongst them, and has with good reason demanded their being made harmless.

Looking upon the faculties and gifts with which the individuals have been originally furnished, I find—going by the descriptions given by their relatives and surroundings—that in thirteen cases they are said to have been ordinarily, commonly gifted; a few are even stated to have been talented, without having, however, in any way proved themselves possessed of specially prominent faculties or possibilities. In fifteen cases the intellectual endowment has been very small and defective, and in five I am referring to individuals of such inferior intellectual value that they must be

considered imbecile and closely approaching to idiocy proper. As regards three others, these have so early been addicted to excessive use of spirits that it is, properly speaking, out of the question to determine their intellectual worth. Finally, as far as the last eight are concerned, all information or definition in this respect is wanting, and I have not been able to form any independent, well-founded opinion from their behaviour as patients in the asylum. Passing on, finally, to investigating the condition of their minds as resulting in their intellectual personalities, I obtain data so tragic, that those five whom I have already mentioned above as being on the verge of mental debility must also, looked upon from this side, be characterised by that minimum of moral balance which is peculiar to this domain, while four have become incurable lunatics at so early an age that there could not yet be a question of any intellectual development, properly speaking, which could possibly be estimated. Eleven have ended as strongly marked drunkards from an early age; in three, epileptic disease has developed. The two last classes are also intellectually characterised by the level which

these conditions necessarily indicate. Out of the remainder, seven are reported to be "gloomy," "splenetic," peculiar natures, while eleven others are characterised as "impetuous," "irritable," or "brutal" persons—a single person is even termed "savage". As far as these individuals are concerned, no useful information is at hand; but my knowledge of them as patients in the asylum proves to me that they have never raised themselves above a very low level. Finally, within this group a small number of four criminals is found, all characterised by the somewhat aggravating natures of their deeds. Thus, in two cases it was a question of incendiarism; one was one of the above-mentioned epileptics, the other one of those standing on the verge of mental debility. In one case it was acts of violence of a most brutal nature, again by one of the individuals in whom the inheritance had developed in the form of epilepsy, and finally fraud in one of those afflicted with idiocy. Further, in several others there were found instances of brutal acts and perversities of different kinds, which had, however, not brought them into collision with the law-evidently quite a different race of people from the one

mentioned above, whose inheritance was derived from mental disease.

The case becomes, however, far more striking when I turn towards the third phenomenon, viz., the inheritance from the epileptic antecedent. Seeing that this disease, as far as numbers go, generally plays a less prominent part in the Lunatic Asylum, as well as in life outside of this, than the two above-mentioned instances, I take it to be a natural result that, as regards this question, I have a somewhat lesser material to build upon than in the other cases. I have only been able to collect a group of twenty individuals in all where epilepsy has been proved with absolute certainty in the ascending line, and without other factors having played such a part in the antecedents that the relations become too unreliable. Of these (fourteen men and six women) four have the disposition from an epileptic father, twelve from an epileptic mother, while the last four take the inheritance from the grandparents, in one case father's mother, in another father's father, and in two cases mother's mother. Out of these twenty individuals, whose hard fate has brought them within the pale of mental disease, only one

solitary one can be considered an acute and curable case—yet with a tendency towards relapses, and inclination to drinking; all the others have, in one way or another, been so strongly affected that they have been beyond saving. Two of them have reaped the fruit of their inheritance in a direct form, purely as epilepsy; two others-sisters-have been incurable lunatics from early youth, and have for many years had their abode in the asylum, where they count amongst the most brutal and violent of the inmates. Only one has escaped with a milder form of mental disease, yet also incurable. But all the remaining fourteen have fallen in the criminal world, even to its lowest classes. That is to say, there is one murderer and four incendiaries; two have been guilty of offences against decency and morals, and of rape; one of acts of violence; four have been punished for theft and fraud, two for theft only. Out of these fourteen, five have suffered from epilepsy as well. This is evidently a picture of the darkest hue, and as far as faculties and mind are concerned, the relations are just the same. A solitary figure—the above-mentioned curable case—belonged to the educated classes

and was possessed of ordinary faculties, perhaps rather above than below the average; another female patient was of mild and gentle disposition; but all the rest are lost in undefinable obscurity, where a general valuation according to the normal standard cannot be applied at all. The dissolution and confusion had, throughout, taken place so early in life that no steady and clear lines could any longer be followed up.

Such are, approximately, the relations of these three groups of psychical inheritance. All of them are powers of darkness, though in different degrees and shades, and no single extenuating or redeeming feature rises from their obscure subsoil. But that hardly comprises all that is to be said about the theory of psychical inheritance. As probably everyone who reads will know, there has in our days been depicted quite a different aspect of this notion, both by alienists and many other more or less comprehending authors—in a scientific form as well as in poetical descriptions. It is certainly still the general belief that all such inheritances finally end in sombre degeneration; that the family gradually declines towards its destruction. But before this sets in, the curious phe-

nomenon has been noted that often-according to the general idea, one might say, as a rulethis decline may be attended with a peculiar blazing up of the psychic forces and power; that frequently the degeneration may be associated with a particular gift, which would especially pronounce itself within the realms of imagination and emotion, and cause just those phenomena that demand such a hot subsoil—the creative productive arts—to have their homes in these misty regions. It is this conviction that has been most forcibly expressed in the apparently grotesque sentence: "Genius is a neurosis," a disease of the nervous system of an uncertain, not clearly definable nature, a sentence that was first uttered by a famous Frenchman in the last century (Moreau), but which has in later years acquired a place as one of the most pithy shibboleths of mankind. In literature, many volumes have been written with this sentence as their central focus, and it is hardly without reason that so peculiar an axiom has attracted such wonderful attention. As has been already stated, it has now, so to say, grown to be universally accepted. As an instance out of my own experience, I may

state that during later years it has often happened that patients of the asylum—mostly younger ones—children of their time, in the narrower sense of the word, have with a certain pride presented themselves to me as "degenerative phenomena." But the fact itself cannot yet be said to have found its proper interpretation; it almost appears as if the old adage, that the lamp flares up before it goes out, has been accepted as a generally sufficient explanation.

Looking back over the material on which I have founded my above classification of psychic inheritance, it will be immediately obvious that a phenomenon like the one here in question could not possibly be supposed to find a place within any one of those three divisions. I have with great care collected the relations of these individuals, not only as regards mental disease, or other diseases of a similar nature, but I have also gathered together as much information as I could about their innate faculties and natural gifts, about their whole psychic disposition, to which I have added the impressions resulting from my own personal knowledge of them. But in none—absolutely not in one—

of the cases mentioned have I found anything whatever, not even the most feeble trace, that might confirm the above-mentioned theory. Seeing, however, that, looking upon the phenomenon in a general way as part of life in its main features, it also appears to me indubitable and not to be disregarded, I have in every way attempted to investigate it by means of the material presented by the Lunatic Asylum, feeling certain that, if it is really existent in the world, it must also—at least by way of suggestion—show itself there, and I believe indeed I have found it.

Having, in the course of years, often and in many directions gone over my materials from the asylum as far as they relate to the question of psychical inheritance, there is one phenomenon to which my attention has been forcibly drawn. While information about heredity in cases of mental disease is, generally speaking, very frequent, and, as it appears to me, in the course of time increases and becomes more precise, in proportion to the comprehension of the disease becoming more general, so one meets now and again, often at long intervals of time, with patients whose family relations,

as far as regards neuropathy, are of so extensive and varied a nature that they can but be looked upon as a separate phenomenon, a case that must be considered as having its own and peculiar significance. Generally speaking the case is now-or perhaps, more correctly, as yet-this, that information about such relations cannot be followed very far back as to time; according to my experience it is, as a rule, only a question of, at the outside, four generations, let us say from the transition from the eighteenth to the nineteenth century, the period approximately coinciding with the beginning of the modern investigation of mental disease. Through many years I have, in this connection, got accustomed to describe, spontaneously, in my own mind, these families, which are connected through a rich network of crossing and interwoven influences from both the paternal and the maternal side, as the "Great Families," and to consider them as the aristocracy of mental diseases-or, perhaps, speaking more correctly, of the Lunatic Asylum. They belong to all classes of the population, from the highest to the lowest; but it is a certain fact that the phenomenon, as I have become acquainted with it from the Lunatic Asylums, is far more prominent and occurs far more frequently in the more freely situated higher classes than in the broader layers of society, whether this has its logical cause in the nature of the conditions of life itself, to the possibility of which I am later on going to allude, or whether it is due to those more educated and civilized families having a more extensive knowledge of the past and of their own family matters, and a surer and clearer understanding of those phenomena the elucidation of which is of importance in this connection.

While I have, as regards the three above-mentioned classes—the mentally diseased, the alcoholic, and the epileptic degeneration—been necessarily restricted to a very carefully sifted and selected material, in order to avoid mixing in factors not pertinent to the question, which would render the conditions uncertain, the case is almost the reverse as far as the "Great Families" are concerned. Where this phenomenon is taken into the question at all, the greater and the more ramified the material, and the more varied the forms of disease which

are taken under consideration, the better. There is absolutely no matter which should be excluded from the sum total-unless, indeed, it should happen that quite mistaken or erroneous information should have been given by the relatives; but this possibility may with all confidence be said to be of no importance whatever. As will be easily conceived, the relatives have a decided inclination towards seeing the cases in the mildest and most favourable light, and I have frequently expended a good deal of time to get to the bottom of the many abnormalities and pathological conditions which the general public still too frequently considers as insignificant and unimportant in this connection, while yet they may be of the greatest value and interest to the alienist—not to mention intentional concealment, which may also occur. As regards this material, it is really quite impossible to get too many, or too highly interwoven, threads brought in; on the contrary, the more the better, and the more interwoven, the clearer and more complete the illumination of the matter becomes. I have therefore been able to use all the material of which I have become possessed, such as I have collected it through a long series of years, and which I have, by taking every opportunity for penetrating farther into its several details, been able to amplify as time went on.

Only in one respect have I drawn a sharp and distinct border-line, having exclusively restricted myself to using the material offered by the asylum at Middelfart during its comparatively short existence—about fifteen years. It would not have been difficult to me to include a much larger and very important material from my former experiences in another asylum-having for a long time had a clear understanding of the feature of the "Great Families"; neither would it have involved insuperable difficulties for me to supplement my material with valuable information through my knowledge of many families in the outer world, to whom I have never had any direct relations through an asylum; yet I have considered it right to restrict myself to the special limits and experiences from the Middelfart Asylum, partly because, on the whole, I may say that I have the most reliable and best knowledge of this limited material, and partly because I have there been able to treat it the

more in conformity with the above-mentioned three classes. Through this limitation, I also avoid the danger that the phenomenon may in the comparison assume too large proportions, as it were; in considering it under the same conditions as apply to the other classes, it is more likely that it will also as regards numbers take its proper place. I shall merely add that I have, as far as regards these somewhat uncertain questions, exclusively considered those various cases where I believe I stand on perfectly firm and safe ground, and am able to build on quite objectively reliable information from the families themselves, or from their medical men, who had advised the patients to be admitted to the asylum.

Glancing, then, collectively over my material of "Great Families," as I have met with them in the Middelfart Asylum, I am able to muster forty-four in all. As already stated, they reach over a wide social territory, seeing that common country people, as well as some of the most prominent families in Denmark, are represented. The majority belong, however, as intimated above, to the educated classes.

These forty-four families have altogether

supplied seventy members to the Middelfart Asylum alone. The one most numerously represented has, for instance, had four members as inmates; a small series supplies three, others two, the majority only one member. But, besides these seventy cases of lunacy, there has occurred-according to absolutely reliable information given to me-no fewer than 358 distinctly abnormal cases of a neuropathic nature -mental diseases, or other nervous disorderswithin the ascending family lines of these patients, or their very nearest lateral branches -as a rule uncles, aunts or first cousinswhich, added to the seventy patients, make a total number of 428 acknowledged and welldefined maladies within these families in the course of a few generations. But I may say, as a rule, a further remark is added that "the whole family," "the whole family of the father," or "the whole family of the mother," or "several sisters or brothers," etc., are characterised by "excessive nervousness," "gloomy disposition," "variable temper" or other similar terms, which probably in general just describe the correct conditions viz., that it is here a question of a pervading and widespread family disease, out of which then, from time to time, the individual and more distinct and pronounced pathological cases become noticeable. But it is of course not possible for me to give more than just a summary of information about the whole dark underlying subsoil which cannot be transposed into exact figures.

It is then, as regards those seventy patients, distinctly pronounced insanity that has led them across the threshold of the asylum. Before, however, passing on to a more detailed account of these cases, I will first glance over the families which form the background for these single, more pronounced, figures. I then find within these families a not inconsiderable number of cases of pronounced insanity—I can thus substantiate in fifty cases that the patients have been admitted into other asylums, and, as far as a not inconsiderable number of these is concerned, even several times-for it is just a peculiarity of individuals with this disposition, that they oscillate comparatively easily away from their unstable equilibrium, but also, under quiet and suitable conditions, swing back again as easily. It is also in good keeping with this that mental disorders of lighter form and milder

degree have been reported concerning a very great number of individuals of these families, such as "melancholy," "excitability," "eccentric behaviour," and the like milder shades, which would not of necessity bring the individuals into the Lunatic Asylum, but which have yet impressed a so particularly pathological stamp on their whole being that distinct information is at hand regarding every one of them. But, on the other hand, the limits between these individual figures on the one side and the broader information regarding similar cases distributed within the whole family, as I have mentioned them above, are too fluctuating to enable me here to specify them by exact figures. Within these families also other nervous disorders are of no rare occurrence; yet this is probably of less importance than one might feel inclined to think, anyhow as far as regards the positive information to hand. Thus, for instance, as far as my knowledge goes, apoplexy occurs in only five of these families; epilepsy in three only, and, moreover, does not even in any one of the cases appear to have been of a serious nature; in only one single family have I found Chorea (St Vitus's dance) reported. There seems, however, to be an indication that where such a nervous disorder has once made its appearance in a family, there is possibly a certain tendency towards its taking root and recurring with odd scattered cases within these limits. Yet the figures relating to this question are absolutely too small for founding more than a mere supposition on them.

Actual deeper degrees of mental debility (idiocy) have only been reported, singly, in six families; whereas the lighter degrees have been frequently noted under different denominations—"poorly gifted," "half soft," "imbecile," etc.—but throughout it appears difficult to single out these from the various degenerative forms of mental disease, such as they occur in their farthest branches, mostly in young, undeveloped individuals. The striking bodily signs of degeneration are very rarely met with; in one family deaf-mutism occurs; in another several cases of hare-lip; and in a third now and again supernumerary fingers or toes.

It is then not so much by the deeply penetrating, vital disorders of the individuals that these family diseases are characterised as by the slighter, quickly oscillating, conditions which

appear as the outcome of the general pathological subsoil, and which show themselves partly through abnormal demonstrations of impulse, partly through ill-regulated manifestations of action. It is thus not a rare occurrence to meet with phenomena originating from this badly balanced and ill-regulated ground. I am specially thinking of such a phenomenon as suicide. Thus, in twenty-three out of the forty-four families the suicidal tendency is met with-in all, thirty-nine cases, that is to say, that have come to my knowledge; and there is no doubt but that this is one of the phenomena which are frequently concealed; and I may add that I am here only speaking of suicides actually accomplished, not of those planned and attempted, but afterwards abandoned or prevented, a circumstance that may be just as significant and important as the accomplished act, but about which, as will be readily understood, the information available is not so reliable that it can be taken into account in the general summing up. Also a feature as sexual perversity, which may perhaps be justly said to have its native soil within this territory, appears in some casesit has thus been substantiated in eight familiesbut this just belongs to those facts which are generally screened from a more close investigation, and which, where they occur, are, as much as possible, left unmentioned and kept dark, so I do not believe that my material supplies a correct expression of its frequency. It would, of course, be beyond reason to suppose that an aberration like inclination to drinking should be missing in these families. I am rather inclined to consider it particularly noticeable that it has been indicated in only eighteen out of the forty-four families. In general, the habit of intemperance occurs scattered around amongst the lateral branches, and is thus probably mostly to be looked upon as a general feature of the lack of moral balance in the family; still, it occurs in eight cases in the directly ascending line of patients that have been treated in the Middelfart Asylum; yet in no single instance is it found in the parents but in all eight cases in ancestors of earlier generations. Wherever it occurs, there are generally several examples within the same family. As regards a feature like morphinism, abuse of opium, and the like, it has been reported only twice; but this is, on the one hand, a matter that touches only the very latest generations, on the other it counts—anyhow as yet—very little as far as concerns the common Danish provincial population from which the material has been collected, and, again, only a very casual and defective information in this respect may be counted upon as far as regards individuals who have not already, through the force of necessity, been brought within the precincts of the asylum on account of such a failing.

Finally, as regards the question of crimes, I consider it very significant when it comes to characterising these families, that in all of them only one single criminal is to be found—viz.—a young incendiary, who was only yet in the early transitory age, and whose whole being was strongly marked by indubitable innate imbecility. But even as far as he is concerned, the case becomes doubtful, seeing that, while on the mother's side he belonged to a specially characteristic, typically pronounced specimen of those "Great Families" in which, however, there had occurred no indication whatever of criminal propensities, all information about his paternal descent was

absolutely wanting. But if I have been able to qualify these families as practically free in this respect, it only means that they have not actually been in collision with the law. Certainly, here and there the disposition towards pilfering, petty theft, slight fraud within family limits, and the like, are met with, besides, as already mentioned, those cases of sexual perversity. Another feature, which might be explained in two ways-partly as a general result of the variable and uncertain temper of these families, and partly, perhaps, in connection with irregularities in their way of living— is the not infrequently occurring desire to leave home, expatriate themselves and adventure into strange countries, a longing which, however, in individuals of this description, very often recedes quickly when insuperable difficulties in carrying it through are met with.

Passing from the diseases and abnormalities as they present themselves openly within the "Great Families" and permeate them, and on to the representatives themselves of these families as they have appeared in the Middelfart Asylum—viz, the above-mentioned seventy patients—the relations are, as far as these are

concerned, similar. In thirty-nine cases it is a question of distinctly pronounced acute diseases. the subjects of which have been able to leave the asylum as cured, or essentially improved; but it is the case with not a few of these that the recovery has again given way to new, and in part often repeated, attacks. Out of the remainder, sixteen have, after one or several visits to the asylum, been reduced to spending their lives within the walls of the establishment; but all of these have preserved such considerable residues of their intelligence and moral standing that, within these limits, they belong to the upper class of the asylum, which are allowed to live under somewhat free conditions, and only differ from the normal type by a few peculiarities, which yet render them unfit for living under the ordinary conditions of life. Out of the remainder, a few cases are as yet uncertain in this respect, having stayed too short a time in the asylum to enable one to say anything definite about their future. But a small series—about a dozen cases—has certainly fallen to a relatively low point, most of them sick from early youth, and comprising the last off-shoots of their families.

In several cases out of this last group other serious causes of disease may, however, be proved—for instance, contusions of the head, acute cases of illness, syphilis, etc.

As yet I have only dwelt on the "Great Families" as far as their purely pathological relations are concerned. I shall now, as with the other groups, proceed to look at them in reference to their intellectual value, examine their faculties and gifts, and their personal status and importance as actors in real life; and I here find relations very different from those of the other three groups. Examining first the seventy individuals that have been admitted as patients to the Middelfart Lunatic Asylum, I cannot, indeed, find one single figure of specially prominent importance; but I find them generally characterised by a comparatively elevated standard of intelligence and culture. In six cases I must certainly take a merely interrogative position, because these individuals represent the yet undeveloped standpoint of the labouring peasantry, or have grown up within the lower classes of the larger towns under conditions which render an exact estimate of their psychic character uncertain. But all the

others belong to families who have raised themselves above the lower strata, and who occupy a more freely situated position in society. Amongst the seventy individuals referred to I find thirty who have attained a certain, not inconsiderable, standard of social cultivation. There is a small substratum of university men, out of which again rises a higher stratum of officials, clergymen, doctors, officers, teachers, merchants, farmers, etc. Amongst the women, twenty-five have reached a point of development which distinctly places them within the ranks of the educated classes, and, as regards several of them, it is even a question of an actual, solid and personal accomplishment, yet without any of them having utilised this beyond the precincts of private life—at the outside only as teachers in various lines. Out of the remainder, nine individuals have been so poorly endowed as regards faculties and possibilities that they cannot be considered in this connection; others have so early in life been struck by the devastating influence of the disease that it has not been possible for me to form any reliable idea about the extent and worth of their natural gifts;

and in a few individuals disorders of another and strongly influential nature have crossed the picture and caused an effect, which properly speaking, places them beyond this group, to which they should, however, according to their whole family analysis, absolutely belong.

It is thus easily seen that this class, to a considerable degree, appears different from the other three above mentioned. But the examination of these few diseased representatives of the families still fails to give a very strong impression of the phenomenon that here faces us. Looking at the families from which they have sprung from the same point of view, the case becomes more striking yet. And this phenomenon is, in this connection, also of far greater interest, for it is just on the whole of the family relation that the weight lies, while the solitary individuals by whom they have been casually represented in a single Lunatic Asylum are of comparatively inferior importance.

Only one more remark. It must be remembered that it is here a question of a field of observation from a quite ordinary provincial Lunatic Asylum in Denmark. In no respect does the establishment present any specially

selected population, such as one might, for instance, more easily imagine in a hospital representing the capital city, or a private asylum principally intended for the higher classes of society. The Middelfart Asylum is essentially intended for the large, poorly or ordinarily situated population, and has its centre of gravity essentially in the country population living in small conditions, seen from an economical standpoint. The better situated classes, those known in the asylum as the first and second class patients, as distinct from the cheaper third, are, and must be, in absolute minority as compared to the latter; and it is only quite exceptionally that the asylum receives patients from a centre of the intellectual and social life of the country, such as the capital.

I shall now examine the forty-four families as regards the faculties and mental gifts occurring within them, and their rank and importance in a social way as far as depends on those qualifications. As I did when considering the individual patients, I must exclude some from the investigation, because their comparatively unpretentious position in life prevents the ascertaining of a proper estimate. Of course,

families belonging to the labouring peasantry may take prominent positions amongst their neighbours; but of this it is not easy to judge. Yet I may draw attention to the fact of several such families having raised themselves from the strictly common "level" so as to comprise farmers, country traders, teachers, and the like. In other cases these families may be said to have attained a prominent provincial position, having worked their way up to a really important social height-looked upon from both a business and an economical point of view -in their native places, so that their family name, as manufacturers or tradesmen, must be said to have attained considerable esteem within the circle of their equals. One of these families has even, out of these primary conditions, raised itself to a reputation known all over the country, and has, from its more unpretending primeval provincial existence, reached the highest rank in its line in the capital and has "founded a house" with a universally respected name.

Eliminating, then, those families, there remain altogether twenty-eight of whom my knowledge is somewhat extensive—although, as already said—limited to the latest generations. Let me

then attempt, by a short summary, to show in what circumstances, and on which step of the ladder of existence, these families are now to be found-in other words, to give an idea of their social level. Amongst the members of these families are then found: two cabinet Ministers, an ambassador, three bishops, a clerk in Holy Orders, besides seven other, in part prominent, clergymen, deans of a diocese, etc.; further, three generals and several other high officers, three admirals and a series of high naval officers; three members of the highest courts of justice of the country; two headmasters of grammar schools and two directors of large and well-known educational establishments; eight chief physicians of the largest hospitals of the country; nine university professors of the different faculties; at least twentythree holders of academic doctorates; further, a couple of officials in such very prominent and unique positions that I cannot very well specify these without at least directing suspicion towards particular persons; and, finally, a large number of officials, business men, members of parliament, members of the Copenhagen Town Council, physicians, teachers and others, concerning whom I am unable to give reliable and exact figures, because they have not on an average attained such prominent and conspicuous positions that I have a fair certainty of knowing them all; anyhow, their number is considerable, and further knowledge could but increase it.

To all societies—and probably not least to a small, slowly and carefully formed one like the Danish, where evolution rarely takes place by fits and starts—the law is, presumably with a certain physical necessity, so applicable that it requires preparation and maturing through a long space of time before the families can reach those social heights which are fairly well indicated by the facts given above. The brains of the families must have been prepared and adapted through many generations before they attain the development and the agility which is necessary in order first to become victorious in competition, and next to be equal to the considerable and somewhat exacting work which such social positions carry with them. In other words, it is old families that are here dealt with. I am unable to give any information whatever about their more remote past as far as it is connected with the substratum from which they must once upon a time have raised themselves; even those whom I am able to follow back the farthest give no information about their origin. But such genealogical tables of undoubted reliability as are at hand regarding a few families, and which reach back three or four centuries, always, as far as I have been able to ascertain, stop at some figure where a certain height of social importance has already been attained; what lies beyond that is silence. I am not able to clear up the connection of the families with the obscure substratum—neither is that my object.

But this social level that characterises the antiquity and the point of development of the families is only one side of the question. There is also another side; and this appears to me to be of rather greater and more striking interest. It is the general view of the sum total and the form of the intellectual faculties which appear to be collected and developed inside these families. In this investigation I am obliged to cross the already established fact that the feature of degeneration should be allied to certain peculiar forms of talent, and especially to those appertaining to what is known as the demesne of

emotional and imaginative life, and which finds its expression in the creative, producing arts. Genius is a neurosis. I believe that my material furnishes elements also towards the elucidation of this, till now, empirically propounded theory, whose general connection and sense there has hitherto been no opportunity of clearing up.

It is, therefore less a question of so-called practical gifts-viz., those that are required in order to make way through the actual relations of life—and more of the characteristic individual capacity which its owner possesses and develops as something personal and belonging to himself. Looking, then, into the realms of science and the fine arts, my material furnishes me with a rather surprising result. Thus, in those twenty-eight families are to be found no less than twenty poets, distributed over a span of time of about a hundred years, most of them, though, belonging to recent times. Still, I am not at all certain but that the number would have been far greater had I been able to clear up the connections of the lateral lines during the past, in relation to the present. Now, I do not mean to say that all of those twenty are equally prominent figures in the world of art; but in

this connection their absolute artistic value is not the point. But there are amongst them names of the very highest rank, and all of them count amongst those that have, in one way or another, attracted the interest and attention of their contemporaries; as far as I may judge, even more than half of their number will retain their standing for generations to come. And, as with the art of poetry, so also with the other fine arts in their different manifestations. They are represented in my list by fifteen names—comprising painters, sculptors, architects and engravers. The same proportion as relates to the poets also holds good for these. More than half may be characterised as being in part names of high rank. The art of music is represented by nine names, including both composers and executive artists; also about half of these may be counted as being known all over the country. Dramatic art appears with eight names, of which two were highly esteemed artists in their day, while the remainder include more or less talented men of our own time. Further, I find here a series of authors, eighteen in number, partly persons of prominent rank in Danish literature; it may be said also of these

that more than half are people of decided importance, and none of those I have included in this group fall beyond the circle of really innate capacities. The labours of these authors predominantly congregate essentially around such subjects as history, literature, art, and æsthetics; and only a few isolated ones are of a more strictly professional, physical or social kind. Besides these there appears a broad lower class of individuals, who have occasionally made their appearance as writers on one subject or another, without being yet entitled to be counted amongst the class of authors in a more narrow sense; and, finally, a couple of figures have attracted notice as inventors, of whom at least one must, I believe, be said to be an undoubtedly clever man.

Inside these twenty-eight families we thus find a number of no less than seventy-two individuals—sixty-two men and ten women—who may be said to have acquired a more or less prominent social position through their special personal intellect; this appears somewhat striking, and can hardly be considered as a mere accident. Joining now the two series, the one characterising their social level, which I have given as a proof of the antiquity

and maturity of the families, and the other comprising the indications of the nature and characteristics of their abilities, I get a collective series of old families whose lives and interests have perhaps removed them somewhat from the hardy first-hand realities of existence, and have, to a certain extent, been withdrawn, as it were, to a position of appreciating contemplation and finer observation, which has then again frequently resulted in a secondary representation and reflection of the phenomena of actual life through the images of art. They are no longer the able-bodied and sturdy figures of ordinary life; they are the solitary, refined natures, which occupy an elevated and highly developed position in life, and whose endowments are characterised by comprehensive, collective, understanding views more than by hard personal work.

Let me still, for a moment, dwell upon the individual figures, such as they are characterised within the families in connection with the question of mental disease. As already said above, it is not the heavy, devastating forms of disease, which each lay hold of their man and destroy him at once, that form the charac-

teristics of the family disorders of this kind; it is rather the lighter forms, based on the unstable equilibrium, which easily flare up and, as a rule, catch the same individual many times during his life, sometimes crossing his existence merely as a passing cloud, perhaps also every time doing such damage that he carries evident marks from them through life, being yet, as a rule, able to continue life in the usual form, at any rate up to far advanced stages. If one should collect in one name the characteristics of these figures, looking at them from this point of view, it would be most appropriately the designation of "impulsive persons," individuals who-generally from inner, not always traceable, causes—assume sometimes one, sometimes another position in the daily conflicts of life, and who, without any evident logical reasons, consistent with the surrounding facts and motives, permit themselves to be governed by the dim and shifting oscillations within themselves, and therefore respond irregularly and capriciously to outside impressions and relations. There is no doubt but that this class of humanity finds its most numerous representatives inside of this groove. It is true that sudden and capricious

oscillations are not absent from the above-mentioned three groups, but there they generally take quite a different character, breaking out violently and suddenly. Within this group they, like the pronounced forms of the disease themselves, bear a quite different, milder and lighter stamp, which is, so to say, never characterised by the violent outbursts, but only by the easily changing, passing ripples that cross the mirror of the mind, and cause the shifting variations which sometimes approach the boundaries of normal conditions, sometimes may temporarily take the form of a pathological state, and then come to rest comparatively quickly. Adding, then, this characteristic to the picture of these families, as I have drawn it immediately above, the result resolves itself into individuals who represent a high standard of intellectual life and capability, a good and ample development of intelligence and knowledge, joined to an easily affected, strongly oscillating disposition, which renders them a strongly sensitive soundingboard to all impressions, and well adapted for letting these impressions resound with an adequate expression full of feeling.

Now, putting the question to myself, What

is the natural tie that binds these families into a group? I cannot, of course, stop at the outward, or even the psychic marks which are common to them; for this we know too little of the innermost nature and character of these latter. They are merely symptoms which bring out the outer similarity and harmony that catches the eye and draws attention to the phenomenon; but that is not sufficient to convince us that we really have an essentially complete unity and totality before us. As already remarked, these figures do not coincide with the already mentioned three groups. Indeed, they do not appear to have any points of contact at all with epilepsy and alcoholic degeneration; and as regards the inheritance of mental disease in the strict sense of the word, the similarity is, indeed, greater, or rather, the dissimilarity smaller, yet sufficient to prevent their being in any way mixed up together. I must then look for a point of another kind-but still. of course, a somatic one,-which may, as a common factor, have knitted these families into a unity; and I believe I have found such a point, which is not alien to the modern views of diseases, but which has, on the contrary, as one of the burning, although as yet open, questions, strongly attracted the general attention. I am thinking of the uratic diathesis, or, as I would prefer to call it in this connection, the uratic degeneration. To be on the safe side, I must here add the remark that, although, as I shall further mention later on, I am myself inclined to believe in a true causal connection between the uratic degeneration and the "great families," this connection may, of course, also be considered as two parallel branches from the same trunk.

During later years I have tried to follow up this phenomenon all through the mental diseases, where it has, indeed, already underthe designation of the periodical state of depression (C. Lange) occupied an acknowledged and undisputed place. Yet I am not bringing it forward here in order to collect my experiences in this respect; I am not, in this place, writing the not yet complete history of uratic degeneration, but am only trying to, in this special connection, maintain for it an importance which appears to me to be beyond doubt. Firstly, I shall then restrict myself to touch on the phenomenon exclusively as far as it concerns

the cortex of the brain; in this connection I have no occasion for discussing even its influence on the peripheral nervous system. Next, I exclude from my investigation all those forms and shapes in which the phenomenon occurs with a mere passing and only symptomatic importance. It is an old, well known fact that the uratic diathesis appears with special force during the climacteric process in women. Also that it may be occasioned by external casual causes-unsuitable mode of living; an indolent, sedentary life, as with gouty persons; a somewhat excessive supply of nourishment, as is not rare in this country; excessive use of spirits; limecharged drinking-water, etc. But I am waiving all these issues, all of which may yet be of importance, and am only looking into the phenomenon in its deeper significance and characteristics.

For, besides these more casual forms of the symptomatic diathesis, there is—as already acknowledged from olden times—also a deeper disorder of a more independent nature; and it is this form which I am desirous of drawing within the province of degeneration. This general state may occur from early youth—sometimes even from infancy—and may follow

the individual all through a long life. As a designation of the disease, if it may be so called, the word "gravel" has been used from olden times, because in this phenomenon the most palpable and striking criterion of the presence of the disease was found; and this designation also had the advantage of giving an explanation of the strongly marked periodical course of the disease—to the common intellect easily comprehensible—as the from time to time recurring secretions of gravel were marked by any increase of irritation or violence in the state of the patient. But behind this most easily observable phenomenon, which is of extreme value for the diagnosis of the disorder, there is hidden a long series of phenomena of poisoning by alcohol and processes of other kinds, which permeate the whole organism and crop out through all the different organs of the body. It is, indeed, an old empirical fact, which was already acknowledged in those times when the disease was looked upon merely as gravel, that the whole phenomenon is highly hereditary, and in many families descends from one generation to another.

Looking at the disorder as occurring in the

form of actual disease in the single individual, I consider that there are two distinct groups of nervous symptoms to be distinguished from each other-viz., the one referring to the more peripherical spheres, and which manifests itself through a number of reflectory neurotic phenomena, generally acting purely locally through the mechanical influence of the residue of gravel, which, during its passage through the narrow ways of discharge, may occasion a great variety of such phenomena; and the other, the uratic intoxication proper, which appears to me especially to prove itself as having special influence on the central organ and-at any rate very essentially-on the psychic functions of the latter. Both these groups of symptoms undoubtedly have a periodic course; the first, as will be easily conceived, to a much more prominent extent than the other one; and when this latter has, so to say, taken up its abode within the organism and in the very fullest sense of the word acidified it by its pernicious influence, the periodic course may, without doubt, in the course of time give room to a more stationary one, and the whole disorder assume a more continuous form.

Amongst the other symptoms of the disorder, I shall only call to mind—because I have occasionally had to use them as points of support in my diagnoses—the well-known phenomena of arthritic exudations in the articulations, and deposits within the muscular systsm.

Indeed, the whole disorder is to be considered as the result of an abnormal change of matter. a defective process of digestion. The matter. which ought to have been thoroughly worked up and again secreted by the organism as uric matter, is left halfway, cannot be thoroughly treated, and is then in part deposited as residues, which act as auto-intoxicating elements, or are secreted as uric acid, viz., undigested remnants, which have failed to reach the final process of combustion and therefore have to be secreted as palpable slags, under trouble and difficulties. The whole phenomenon can probably be considered only as a sign of weakening of the organism, of its inability to perform its normal work. And what else is the process of nutrition of which we are here speaking but, on the one hand, the specific maintenance of the single person as bearer of his individual existence, and, on the other hand, looking upon

him as being included in the larger human society and forming a part thereof, the nutrition of his brain and its consequent strength and value? I believe that, like the epileptic and alcoholic degeneration, the uratic degeneration also must be said to extend its distinctly psychical influence far beyond the limits and territory of the single individual, far and deeply into the great and multifariously ramified economy of the whole universe.

I have also thought to have found in this somatic substratum the connecting link which binds these "great families" into one union. Amongst the forty-four families which altogether form my material, I have succeeded in substantiating it with certainty in thirty-eight cases; frequently-in altogether twenty-eight cases:-in the patient who represented the family in this establishment; in the other ten cases it existed in the family without my having yet been able to prove it in their representatives in the asylum: both cases united have occurred thirteen times. But I must add to this statement that I have in this investigation constantly restricted myself to counting in only those cases where the proof occurs in the unmistakable and palpable form

of "gravel." And if I have not, in several cases, succeeded in distinctly proving the phenomenon, the reason is, without doubt, partly, as far as regards the individuals treated in this asylum, that their stay here has occurred at a time when I had not yet undertaken and carried through my investigations of this question in a methodical manner, because my attention had not yet been directed towards it; and as regards the families, that the disorder in the outside world is so far from having attracted sufficient attention that the information supplied cannot at all be considered as a fully valid representation of the actual state. When, therefore, I have in six cases been unable to give any information, I certainly do not consider that as a proof that the disorder has not occurred in these families, so much the less as all of them in their whole generic habit, to the farthest extent, coincide with those in which the uratic degeneration has been proved. And in each of the cases where I am lacking positive information, I believe myself to be able to find an explanation for this. Thus, a female patient belongs to a peasant family living in a small isolated island; under such circumstances

I think that, even in our day, it would be a rare occurrence to get a phenomenon like "uratic diathesis" proved. Her family, however, presents, only within the latest generations, the following history of the illness: Father's father melancholy; father's mother capricious; father very queer; father's sister mentally diseased and suicide; another sister of the father mentally diseased and suicide; other brothers and sisters of father distinctly queer; a female cousin on the father's side mentally diseased has been an inmate of a Lunatic Asylum; a cousin on the father's side mentally diseased and suicide; hare-lip occurring rather frequently among the whole family of the father; the whole family of the mother excessively lively and loquacious; one brother of the mother queer; a female cousin on the mother's side mentally diseased and suicide. The patient herself was originally of a very soft and impressionable disposition, said to be "slow at her work," "easily frightened"; at one time very strongly mentally affected during a pregnancy; another time likewise during a thunderstorm, when a neighbouring house was struck by lightning, was then subject to coercive suicidal mania. During

a slight attack of gastric fever she became mentally diseased, but quickly recovered; yet only shortly afterwards had a relapse, this time without any ostensible cause; was then placed in the asylum, where her disorder lapsed in the form of a lighter melancholy, lasting only a few weeks, after which time she could be discharged as cured; now, after the lapse of five years, she appears to have kept well, anyhow as far as regards pronounced mental disease. Her stav at the establishment was absolutely too short to enable one to form a well-founded opinion as to whether she was suffering from uratic diathesis; it might be easily conceivable that her disorder took place between two discharges of calculi renales. But such a state, with its partly soft and heavy, partly light and excessively quickly oscillating mind and shifting moods, just points to the uratic diathesis as developed through generations, and I therefore believe it not unlikely that it is only the want of more complete information in this respect which prevents me from classing this family under that head. And as regards the few other families about whom I am unable to record anything definite,

the case is similar; thus, one belongs to a foreign country and the information at hand only concerns more prominent and grave cases of mental disease; a couple of others I came across so long ago that I was not prepared at that time to put the necessary questions.

Next, restricting my investigations to include only those twenty-eight families for whose social and personal relations I believe to have accounted above, the aspect of the case becomes still more favourable, seeing that I have in twenty-four cases been able to distinctly prove the phenomenon; and out of the others it is in three cases just a question of families through whom the nervous elements extend in a manner exactly corresponding to the uratic degeneration. Thus, in one family two lines are crossing each other, the father's side, which is characterised by epileptic disorders and heavy excesses in the way of inebrietyfacts which place it outside of this groupand the mother's side, which is in widely ramified lines characterised by oscillating moods, lighter forms of depression, a few cases of mental diseases, and three suicides; while right in the centre of this latter family a figure appears of a particularly refined and prominent intellectual description, who was never mentally diseased himself, but yet occasionally in his letters, written long before the modern conception of uratic degeneration, describes his own state as follows: "I have been in as black and villainous a mood as ever I can remember." (Two years later): "It is the intolerable splenetic mood from which I suffered so much two years ago that has again taken hold of me, and this time worse than the first, so that I sometimes shudder to think how it is to end. I am disinclined for work, am only by the greatest effort able to collect my thoughts to anything, and what has been gained one day seems to be lost the next." The following year he again mentions a similar attack, which this time appears to have been milder—possibly in consequence of a treatment which then, as now, consisted in taking the waters, dietary measures, etc. And all this at a time which was, as regards outward circumstances, just easy and happy for him. The whole picture is as copied out of a journal of a diagnosis of uratic diathesis. Another family is, according to its own expert information, characterised by periodically

oscillating moods, with a pronounced inclination towards occasional depressions; rheumatism, in a general way, and asthma also occur in the family. Side by side with this occur cases of special, even prominent, giftedness; and, within the junior generations of this family, distinct cases of abnormity and lunacy. In the third family I have—very centrally—been able to prove cases of stone in the kidneys. Only as regards one single family, which otherwise, by its whole condition in the way of giftedness and mental disease, quite conforms to the picture of uratic diathesis, I do not know of any quite sure motive pointing out the connection. But I really believe that this is only owing to defective information.

As a contrast to these doubtful cases I shall give an instance of how uratic diathesis may be extended through one of these "great families," only premising the remark that the facts—as relating to the family—have been communicated to me by the doctor causing the patient to be sent to the asylum, without having myself looked them up or grouped them: The patient himself has all through life been a very nervous person, who is said already from his tenth year

to have been subject to coercive attacks of terror; this disposition has constantly followed him later on, and he was placed in the asylum on account of a melancholy caused by similar occasionally recurring attacks. During his stay here he has proved himself to be suffering from strong periodical secretions of gravel. His family on the father's side is described as being able, industrious people throughout, but of dark, heavy, eccentric dispositions. There are cases of lunacy, stone in the kidneys, gravel, and apoplexy within the family-father's father, gravel; father, gravel; brother, gravel; father's brother, gravel; other brother of father, eccentric nature; third brother of father, "inventor" (?); fourth brother of father, gravel, lunacy and apoplexy; son of this last, gravel; other son, mentally diseased, yet after a distinctly accidental cause of another kind; daughter of the same, died a lunatic; cousin of father suicide. Mother's father, apoplexy. The whole family on the mother's side easy going, oscillating, impulsive persons, about whose several conditions hitherto no special information is at hand. This is, I think, the most striking example that I

can quote; but in several of these families the phenomenon has occurred in many cases under various shadings.

In contradistinction to the above I must mention that uratic diathesis has not been reported in a single instance under epileptic or alcoholic degeneration. Under the mentally diseased degeneration it occurs in a single case, but even that appears to me to be doubtful. According to the data available, the mother has been mentally diseased and is continually very nervous; the brother unstable and difficult; the patient herself suffered from repeated attacks of the disease, altogether four, pretty regularly distributed over a span of eight years. I am therefore rather inclined to think that it is here rather a question of an offshoot from one of the "great families," the exact circumstances of which I am unable to clear up.

Comparing, then, this uratic degeneration, as it shows in connection with the phenomenon of mental disease, or, let me rather say, as it appears within the special sphere of the Lunatic Asylum at Middelfart, with the other three groups of degeneration, the mentally diseased, the epileptic and the alcoholic, as I have already sketched

them, it will be easily seen that its manifestation is widely different from that of the latter. While the former groups are essentially only notable through disease, excesses and crime, and while they, during the whole of their development, do not offer a single instance of individuals who have raised themselves above the lower strata of everyday life, with the uratic degeneration the case is quite different. It is here a question of families who must be said to have socially reached to the highest points which society is at all able to offer to them, and who have on the field of intellectual work sown a seed and reaped a harvest which places them as (distinguished, isolated standards amongst those whose personal works may be singled out, be they of greater or lesser value and importance to the individual or mankind in general. In the other three classes it is a question of the unripe fruit which gets, at some casual moment, torn away from the tree, so as, in the mildest case, to fill a place within the precincts of a Lunatic Asylum; or, under other circumstances, to sink still deeper down into the abyss and horrors of existence. In the uratic degeneration it is a question of the

tree that has reached its full development and maturity, that has stood erect and proud and borne its fruit to the benefit and glory of life, but that now, having fulfilled its mission of shielding and shading under its branches, and nourishing by its fruit, has grown old and tired, unable to extract the renewing sap from its soil and transform it in its circulation, and which now, before getting entirely extinguished and withered, still bears an aftermath of stale, tasteless fruit, which does not attain to maturity at the ordinary harvest time, but either gets overripe much too early, or falls to the ground quite undeveloped, to nobody's benefit or pleasure. And then the old trunk shrivels up and dies.

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Collecting now the various groups of degeneration under a common head, their characteristic mark is, generally speaking, a lack of ability to perform the rectilinear brainwork. Every one of them enters his life with his own peculiar disposition, which prevents him from finishing the great race by the even and

straight track. The number and the variation of the cerebral processes is infinite, both as regards quantities and shadings; at bottom we have, as yet, properly speaking, no real understanding of their action and course; merely a comparatively external knowledge of a few local relations which are quite immaterial in this connection. We only know them through their manifestations towards the outer world, and that even very imperfectly. We know that they are set in motion-released-in one out of two ways, either by outside impressions from the surroundings, which are carried to the central organ through the sensory nerves, or by inner impulses originating within the organ itself. We further know that here, like elsewhere within the nervous system, a regulating counteraction takes place, which prevents the processes from going astray. Yet-considered as a mechanism-we know nothing as to the way the subdivided processes in endless variety take their course, how the countless roads and pathways of the cerebral cortex cross each other, and, on the other hand, go clear of each other, so that the single processes may take their courses and manifest themselves HAL

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with the proper clearness and distinction; how, on one hand, strengthening parallel motions and, on the other, regulating counter-motions are formed. But we stand in amazement in face of the certainty with which the keyboard is worked, with which it delivers its message with "reply paid," and again immediately returns the latter and translates it from thought into action. A solid and reliable working of the brain is the only sound and trustworthy foundation for the regular development of the world; a straight-lined reasoning, and its accurate translation into the sphere of action, is an absolute condition for the progress of life. Even the slightest aberration may carry with it the most certain, yet the most unanticipated consequences; one child, the offspring of connubial bliss during intoxication, may perhaps be sufficient for turning the scale and reversing the destinies of a whole family, or at least for neutralising the dignified and valuable efforts of generations. With this fine web of cerebral fibres, so minute and so thin that they are invisible even by the most powerful microscope to the human eye, merciless and unavoidable fate is interwoven; the least fault in the weaving, a broken thread, a knot, is sufficient to turn the course of fate aside from its track, which, according to the laws of nature, should lead towards the glorious goal of the perfection of mankind; its entanglements may mean the disconnecting, disordering, hampering, obstructing, retrograding—in short, all that is pernicious and detrimental.

These are then the paths of degeneration through which it spreads its fatal seed. Let us look at each of the several groups, for whose ultimate manifestations and results I have, by means of my material, accounted above in a summary way and by figures. First, Epilepsy. From out of the mystic substratum, the pathologic processes of which are still unknown to us, it raises its uncanny head. What characterises this disorder in its most typical form is the frequent occurrence of violent convulsions incident to it. As long as these hold the mastery-which is generally the case periodically with shorter or longer intervals-there is generally peace and quietude as far as the psychic condition is concerned. At other times, however, this disorder alternates with most violent outbreaks in the psychic field, which

manifest themselves by the most unruly and brutal actions, a phenomenon which must probably be considered as acting vicariously, as it were, to the above-mentioned convulsions, being, indeed, a disorder of the same nature as those, though having its seat in another cerebral region, a psychical convulsion, so to say. Generally, this phenomenon has been denominated the state of psychic equivalence. These outbreaks within the sphere of action are, as a rule, beyond the knowledge and remembrance of the individual concerned, as are also in many cases the corresponding fits of convulsions. And if we wonderingly ask why the crimes of which these people make themselves guilty during their unconscious fits of action, should be of the most violent formmurder and arson—we presumably face a really mysterious fact; at any rate, we have for the illustration of the question only a faint hint in the old well-known observation, that when another pathological phenomenon of a psychic nature—hallucination—occurs in these individuals, it has, for reasons not to be understood, just a distinct inclination towards assuming the form of light, fire, flames, at times merely the

colour of red in a general way; one gets here, as it were, from out of the deepest and most inexplicable groundwork of things a kind of inkling of some connection between these facts and the red blood or the glaring flames of fire. There is something so awfully merciless and incomprehensible in this that it may well assist in throwing a light over the whole clanking chain of mysterious terror and fear which has, as one of the most important themes, extended through the whole of humanity from one generation to another, through thousands of years, and out of which we can only hope gradually to fight our way, if not through comprehension-for who may as yet really dare to talk about comprehension in this respect?-yet through being, with everincreasing certainty, enabled to bring the facts under their proper and circumscribed sphere and origin, and confine them within their natural limits; this will already be a great advance towards freeing ourselves and all humanity from such a mysterious motive of horror and dread.

It is, of course, not every epileptic disorder that must be looked upon in so fateful a light.

Epilepsy itself may occur under far milder forms and shadings; it may-at any rate in a form which we are unable to distinguish from itmanifest itself symptomatically as epileptic convulsions during cerebral diseases of other kinds; it even appears to be not incompatible with a humane and distinguished personality of prominent psychical rank; examples relating to the heroes of men, such as Julius Cæsar, Napoleon, and others, have been mentioned in this connection. But it also manifests itself in another form, the epileptic family degeneration proper, as I have mentioned it before. Partly, and frequently, it is passed as an inheritance in its original form, the epileptic disorder itself, and may through this bring the individual down to the regularly developed and highly characteristic state of dulness, a dulness which is distinct from all other forms of mental weakening by the feature of painful irritability and repulsive unreasonableness which necessarily places these individuals in a solitary and isolated position in every society; at other times, the inheritance may be transmitted in the shape of the above-mentioned violent and unrestrained outbreaks in the way of actions—actions which, so to say, hint at the ferocious original nature which may lurk beneath the polished and varnished surface, through the culture of centuries. Through these two shadings we obtain a glimpse of the connection between the two great fundamental lines of the psychic processes, the melancholy and the maniacal one. Other manifestations occur, however, of a curiously incomprehensible and mystical stamp, which do not admit of any explanation-I am here alluding to such phenomena as the perfectly senseless sexual denudations, the so-called "exhibitions," of which my material just offers a pronounced instance; perhaps also an enigmatical fact, such as necrophilism, comes under this head.

The epileptic degeneration strikes the family in an arbitrary, casual, undeveloped point; it does not permit any normal development of faculties and possibilities; the individuals may be said to drop from the tree like raw and unripe fruit. Incidentally, I shall only now allude to the so frequently occurring and both confusing and aggravating condition which is caused by the combination of the epileptic degeneration and propensity to drinking, and

which collectively produce the most disastrous results.

The degeneration caused by alcoholism shapes somewhat differently-slightly, but only slightly, more comprehensible to the human mind. Here it looks to the naked eye—and in this connection there are hardly, as yet, any artificial means of sharpening our sense—as if we were dealing with a weakening and brutalising process, generally, which leaves the nervous system of the family in a dulled state, which calls for stronger and more forcible measures, in order to make it susceptible to ordinary impressions. All the finer and milder influences pass the weakened perceptive faculty uninterpreted and ineffective; on the other hand, the more coarse and gross influences again occasion outbreaks of a corresponding violence and brutality. It is therefore these two factors, dullness and brutality, which ultimately form the characteristic criterion. It is true the phenomenon does not throughout bear the impression of uncanny mystery which marks the epileptic degeneration; it manifests itself in a more open and straightforward, coarse and somewhat brutal manner. It is extremely frequent to see the plain propensity towards alcoholic drinks being inherited from generation to generation within the same family; one might then ask if this is not a phenomenon of an essentially psychic nature, whether it is not here a question of habitual excesses, due to the force of bad example? And there is, indeed, no doubt but that this also plays a certain part; nevertheless, the state of the matter is frequently this, that it cannot be doubted that there is really a certain connection between the degenerative brain and alcohol. Occasionally the propensity towards drinking skips a generation, so that the intervening generation keeps clear of excesses of this special form; but then the disorder manifests itself through abnormalities of other kinds, most frequently, as far as my experience goes, through a dull and heavy, indolent and stagnant disposition, after which the next generation again takes up the inclination towards the excesses of the grandparents. It occasionally happens that children, who have during their youth been kept away from these dangerous examples, later on slide into the same bad habits as the parents. These may, finally, be communicated to the progeny in the form of actual mental disease; and here we sometimes meet the phenomenon which has been named dipsomania, the periodical addictedness to drinking, which may mask certain shifting phases of the course of the disorder. If asked about the real innermost connection between lunacy and alcohol, I do not believe that there is really a consubstantiation, but that this in part depends on outside causes. The weakened and dulled state of the nervous system, which so frequently leads to an irresistible craving for heating stimulants, meets on its way through life so easily with the most widely spread and most easily accessible of these-alcohol-and then establishes its fatal connection with it.

In this form of degeneration it is generally at the immature and undeveloped stage that the individuals break away from the ranks, those ranks which mark, through life, the great line of evolution of mankind. Allowing that alcohol has in the matured family a capacity of stimulating the already sensitive brain, and causes a passing oscillation, during which an accustomed productivity acts easily and briskly, it is yet chiefly in the imperfectly

developed and immature brains that it succeeds in exercising the whole of its immense and fatal influence. This also the Lunatic Asylum teaches us in an unmistakable manner. It is again the unripe fruit, which is torn away from its branch and cast away, unfit for future use of any value.

Throwing now a hasty glance over the hereditary degeneration, which encompasses the mental diseases proper, the relation is somewhat different from that concerning the above-mentioned groups. However devastating it may be in many ways, seing that mental diseases interfere with the fundamental relations of life in a disturbing and dissolving manner, it still principally concerns the private position of the individual within his own existence, at any rate far less extending its results into the wider and larger social life than the formerly mentioned groups; it refers rather to the Lunatic Asylum than to the other means of protection of the community. And, indeed, looked upon as individuals, they are throughout characterised as ordinarily gifted persons, with ordinary abilities, who are not marked with any special characteristic at their entrance

into life, beyond the peculiarity that they are exposed as an easier prey to mental disease than their more normally disposed fellow-men.

In this connection the objection might, perhaps, be advanced that there are, nevertheless, classes of individuals, generally considered as belonging to the mentally diseased degeneration, who have gained a decided reputation for having through their diseased state interfered with the ordinary relations of life in a disturbing and destructive manner. I am here thinking of those groups which may in our days be almost considered as forms of degeneration which have passed into general popular knowledge as the impulsive insanity and the moral insanity. But, as regards these, the case must probably be thus interpreted, that these, in themselves comparatively rare, disorders must, according to their peculiar nature, in each particular case be classed under the several forms of degeneration. It may probably be taken for granted, as regards the lowest of these groups—the impulsive insanity, with its disposition towards violent, unrestricted actions—that it is specially related to the epileptic and alcoholic degeneration; as for the milder state, the "moral

insanity," which but rarely manifests itself through occasional acts of violence, but acts more within the precincts of private life as an everlasting obstruction to a peaceful and quiet existence, it is probably partly related to the mentally diseased degeneration in its more narrow sense, but, perhaps also, principally connected to the uratic degeneration, that of the "great families." I certainly believe in the possibility of drawing a boundary line between two forms, one which only develops during the process of life and under its weakening influence -for instance, in women after the setting in of the obstetric period, and which so frequently leads the individual into the asylum; this might perhaps be designated the secondary "moral insanity," in contradistinction to the primary form, which belongs to the uratic degeneration, and is a phenomenon of evolution, occurring from an early age in the individuals belonging to the "old families." This generally manifests itself under more mild, less pronounced, forms of disease, and thus only rarely comes under the notice of the asylum. These are the difficult individuals, who cannot readily be reckoned under any distinct form of disease, but who

so frequently, as a sort of mental invalid, prove themselves incompatible to the existing conditions of life. Occasionally, under special circumstances which obstruct their existence, they seek shelter behind the walls of the asylum, either to protect themselves against the troubles of life, or to free society from their disturbing influence. It is, however, generally only for a shorter visit; when they have again got their inner and outer relations regulated, they return to life to continue their difficult and disturbing course.

Again, the "mentally diseased degeneration" belongs to those who break away from the ranks on the way; this is not a sign of the family having reached its fully ripe maturity. Yet the phenomenon is not here so striking as in the more brutal forms of the epileptic and alcoholic degenerations; frequently, a certain modicum of development may have been attained, but then again the weakened and lessened power of resistance asserts itself and tears the individual and the family away from their normal track—another instance of the unripe fruit.

In these rough sketches I have drawn the

outlines of the three different groups of individuals who enter the world hampered and stunted under the weight of their native inheritance. They are born under a bondage, which places them outside the ranks of freeborn individuals. It is what Shakespeare expresses in these hard words:

"Cowards father cowards, and base things sire base; Nature hath meal and bran; contempt and grace."

Indeed, no mercy is to be hoped for from Nature.

I am now coming to a closer investigation of the last form of degeneration which my material allows me to treat of, viz: the uratic degeneration. This stands in a distinctly different relation to the family, and to life in general, from the other three groups, seeing that it does not crop up as the result of some process of disease or some other foreign factor, which forcibly enters the human organism and drives it and its progeny away from the straight track, but is only the regular manifestation of a fundamental law of nature, which means that, when the family has attained to its full development and maturity, it weakens

and collapses, dwindles away, and dies. It is consequently not here a question of a violent irruption during the still immature stage, but of the natural end, when the goal has been reached and the fruit is ripe.

When a stream rushes forward through its bed and follows the fixed course which leads it towards its destination, it throws out sideways, along the shore, a weaker counter current, which, with a lightly rippled surface, nestles nicely and playfully up against the edge of the great main current. This phenomenon is called the backwater. The same is the case with the degeneration, which is likewise, during the ever-progressing course of the great current which marks the infinite evolution of human life, thrown back in an opposite direction, and in its reverted mirror reflects the life and the peculiarities of the current at the point which the latter has just reached; it certainly, by the force of its retrograde waves, obstructs and hinders somewhat, but it also ripples the surface in a multifarious and varying manner. A boat, being swept along too violently by the strong and rapid main current, sometimes turns aside and makes for the more peaceful undulations of the backwater, in order to find rest in its calmly flowing waters. So also with mankind. It is only the strong ones and those possessed of resisting power who are at all times able to bear the fatiguing voyage, who always rush ahead through breaking waves towards a far removed destination, away in the dim horizon, which, when reached, only opens a new vista pointing to an endless voyage, the end of which the single individual never lives to see, because it really means the infinite travelling forward of the whole human race. But all the weak minds trend off on the way and, like the boat, make for an anchorage in the more peaceful regions of the backwater. They give up the great navigation, and rest satisfied on the spot which they have, at the moment, reached. They slide away from the track of the everlasting progress, for the backwater does not help this latter or, but simply means its abandonment.

But immediately on being cast off from the great current, the backwater's own power and speed slackens; only for a short moment it is able to continue its retrograde course, then it wears itself out against the shore or is lost

beyond recognition amongst the rushes. So also with the degeneration. It may, for a moment, reflect the image of the point where it swerved from the straight course of life, but after a few ripples it ceases and dies away; and it is no more able to open out new tracks, because in its innermost nature it is not strength but weakness. It may still be of high value and importance, if not directly to the development of humanity, yet to the history of its development, because it gives a richly varied image of what the great current in its restless speed carries away ever farther, and because it thereby gives a measure of how far the current has reached just at that moment. One is sometimes apt to be struck speechless with astonishment at its position, and why it should be just there; but, then, there is also, according to an irresistible natural law to which we have calmly to submit, the backwater. What exists has the right to exist. And although it may appear to us, when we face the phenomenon of degeneration as it manifests itself in its most forcible forms in the single individuals, that it is a hard law which has ordained that it should be so within the ranks of humanity, yet nothing else is left to us to do but to try to unravel and understand this, the reverse side of life, to the best of our ability, in order to find out if it could possibly teach us something that might be of benefit to the strong and fresh course of life, as it asserts itself farther out in the great current which is the most important of all, and as compared to which everything else must be considered subservient or may, at the outside, be the object of compassionate charity, as being a sign of weakness and retrogression.

To write the history—or, as it might be more correctly termed, the natural history—of the degeneration would be to write the history of the whole human race, and that even not as it has been done formerly—following up the straight and intelligible threads, conspicuous to human vision, which weave the image of the evolution of the families together into a unity comprehensible to our ideas—but also taking in all the occult influences and hidden emotions of the subsoil, which no human foresight is able to systematise at the moment—because they are moulded over broken laws

and deviating rules of which nobody has the key-and which later on, when life and time have made further progress and shifted the field of observation to other and newer spheres, will be still more difficult to perceive and understand. It is true that human history is teeming with figures which have long ago, by common consent, under one form or another, been amalgamated with this group, however it may at different times have been understood; but the innumerable tentacles through which it has exerted its dissolving and undermining influence have been understood then as imperfectly as they are at present. The results of the degeneration so frequently rest on a foundation which is merely a caricature of reasonings and conditions of life which have once existed, but now already appear to have dwindled out of existence. It is surely difficult enough afterwards to clear up and understand the most palpable and logical results which these normal thoughts and relations themselves have left behind in life; but it appears to me to be just as difficult to attempt to follow the residues of the degenerative perversions as it would be to posterity to comprehend a casual

joke or a sketchy caricature, for a mere inkling of the import of which it would be necessary to have the whole of the most flighty and quickest thoughts of that particular age laid clearly before us. It is, generally speaking, quite impossible. The utmost that can be attained in this respect is probably to give a hint of the manifestation and aspect of the degeneration as it appears just at this particular moment, at this particular stage of development in life, and then from a few scattered points throw a glimmering light over some of the phenomena of existence, and see how they appear under the disturbing influence of the degeneration, and then again see whether it is possible to find lines which repeat themselves and assert their influence in different ways in such a manner that one may from them draw conclusions about the true nature of the degeneration. I still consider the Lunatic Asylum to be the place where one has the best opportunity for clearing up these questions. How far I, with this field of observation as a startingpoint, shall be able to throw a faint light over the infinitely varied relations of life, of course, depends upon what subject matter I myself,

personally and accidentally, am possessed of in the way of knowledge of life, of history, of literature, of art, etc. The total can, at best, be but an abortive attempt, a first beginning; let, then, everybody else carry forward and deepen his view within the domains with which he may be acquainted, and which are of special interest, to him.

However, in giving such a picture of the nature and universal importance of the degeneration, it is first necessary to look at the single figures, and, as far as feasible, to collect them into separate groups. On first looking at these deviations from the straight line, one has a feeling of facing the infinite. "So many men, so many minds," is an old saying, which may, perhaps, just have been unconsciously formed over this phenomenon, and, certainly, the first impression which forces itself upon one's mind in this investigation is the innumerable, the chaotic multitude. But here again the experience from the Lunatic Asylum comes to the rescue, for it is beyond doubt that the great main lines of the degeneration are regulated by the same fundamental conditions as the fully developed mental diseases. I have in

another book \* attempted to demonstrate that these forms of disease, as far as we yet know them, group themselves around a small series of pathological fundamental phenomena—which I have designated "the psychiatric radicals" -with whose innermost character and nature we are not, it is true, intimately acquainted. but which we look upon as indisputable facts, and which form the nucleus of the pure, uncombined forms of disease. I shall recapitulate them here: (1) The restriction, which in the developed disease is the fundamental cause of melancholy; (2) the flight, corresponding to mania; (3) the debilitation, which characterises the confused form of the disease; (4) the erroneous conceit as the centre of insanity; and, finally, (5) the coercive conceit with its peculiar form of disease. But exactly these same radicals come to the fore when it becomes a question of dissolving the degeneration into its several elements, with this distinction that here they manifest themselves in an incomplete, merely suggestive form, which yet stands beyond the boundaries of the mental disease proper.

<sup>\*</sup> A brief Outline of the most important Groups of Mental Disease."

Grouping the afore-mentioned five radicals for the purpose of this investigation, I would connect the first two, the restriction and the flight, into one, and designate them as the "tempo degeneration"; because, what characterises both of them in common is the abnormal tempo, or rate of movement, with which the psychic appropriation and treatment of matter takes place under their influence. The next radical, the debilitation, is in a general way characterised by lack of precision, caused by the degenerative disposition of the apprehension of the matter at hand, while the last two radicals, the erroneous and the coercive conceits, refer to self-consciousness, to the preparation and appropriation, through previous consideration, of the matter. I would add the remark that this classification coincides, to a certain extent, with the old well-known popular grouping of the various temperaments. Thus, the melancholy temperament corresponds to the restriction, the sanguire to the flight, and the choleric chiefly to the erroneous conceit. As regards the phlegmatic temperament, it should, I think, be counted under the radical of the debilitation, yet does not quite cover

this; but this may probably be explained from the fact that in olden times, when the theory of the temperaments was formed, the radical of the debilitation and its inherent form of disease, confusion (Amentia), which belongs to the very newest of the acquirements of psychiatry, had not been quite cleared up; it was, on the contrary, in those days customary to class the secondary weakening-dementia, fatuity-by itself as a particular form of disease (Esquirol), while now we consider this as the common terminal stage of all forms of mental disease. Therefore the physiognomy of this radical has without doubt been far more worked out with a view to the secondary than to the primary debilitation. Something quite similar holds good as regards the coercive conceit, which has also only comparatively lately been demonstrated, whose manifestations were formerly considered to be variations of the process of melancholy the restriction. But the melancholy, the mania, and the erroneous conceit are phenomena which have been known from the oldest times, and have long ago passed into popular consciousness; as such they have consequently also found

their place in the popular theory of the temperaments.

I will then first consider what I designate the "tempo" degeneration, as expressed by the combination of the radicals of flight and of restriction. The nature of the "flight" has much in common with that of a child. Meynert once, in a little essay—which, by the way, was never finished-tried to show how the apparently aimless movements of the infant, under the further development and transformation of certain cerebral organs, are changed and regulated till they gradually become replaced by the conscious and controlled movements. Whether this is correct I am unable to say; but one is, in this connection, spontaneously induced to think of a similar relation between the infantile and the grown-up development. The child is, indeed, with its lively quickness of motion, in both the somatic and psychic sphere, a joy to existence, as long as it abides by what it really is; but when the tempo, or disposition, of the child is, to a greater or lesser degree, continued in grown-up individuals, it is astonishing what disturbance it may cause. In the first instance uneasiness

and fitfulness in every-day life are apparent. Much depends on the position of such an individual in his small, limited and private society; if he has a leading and ruling position, it may confuse the whole establishment, and, without any evil intention, lead it into the most slippery bypaths, where the normal friction of ordinary life is effaced, and matters, without any consideration or purpose, are rushed on over stock and stone to a pernicious end. But even where the position of the individual is not a governing one, but more dependent on his surroundings, the relations are the same, though under a somewhat modified form. It is then felt as the everlasting unrest in the substratum. Something volcanic and capricious is apt to intrude into the situation; there is never the confidence and peace over existence which life can only have when founded on the safe basis of good and clear reasons; but in the place of these, hasty and spontaneous arbitrariness, against which the individual, guided by sober reasoning, must be able to defend himself. Innumerable plans intercross each other within a degeneratively disposed brain of this sort; headlong actions, based on

such plans, sometimes endanger, in a comparatively short span of time, a prosperity founded through generations, and may in short spaces of time lead to the most extravagant situations. Pursuing the relation further, from private into public life, it reiterates itself in the same manner. The hasty temperament of the leading man may exercise the greatest influence on the surroundings; in business relations, in science, in innumerable sorts of relations, it may be seen how the shallow, hasty reasoning may affect people and conditions. Only consider what pernicious influence a journalist of our present day may spread throughout the masses by such a whipped-up and forced literary activity which in its headlong speed rushes over life and skims the cream of its relations, in order to serve it up in hot haste to an impatient public-which has itself been brought into breathless exaltation by his sweeping flight—and then in ceaseless hurry hastens on to the next topic. And the capacity for such activity is doubtlessly based on an actual cerebral peculiarity. He only allows himself time to consider the matters superficially, and by his influence he produces in his readers the

capacity for the same light and superficial reasoning which he follows himself on his lightfooted race from one subject to another, through the whole of the day, and all the year round. Next, we follow the flighty figure into the field of history. Let us, for instance, take one of the rulers of the past, whose prominent position caused his peculiar characteristic to influence the welfare of his country and his people to the greatest extent, I would suggest Charles XII., King of Sweden, descendant of a mentally diseased family, as an example of such a figure, whose hasty and impulsive temper, by virtue of the glory which so frequently illuminates the maniaco-sanguine temperament, led his country, through heedless and stormy conditions, to the most dangerous verge of the gulf of destruction. Carrying now, from a moral point of view, the figure, such as we know it from the developed mental disease, where its characteristics are marked by sharply chiselled lines, into the sphere of the degenerative disposition, we constantly find the same distinguishing marks. The brain of such an individual is swarming with flying fancies and thoughts; the one chases and supplants the other; no time is left for reasoning and criticising on the way, at any rate only most superficially. Hence the often complete want of capacity in these people for discriminating between truth and untruth. In the distinctly maniacally diseased, whose disorder is just characterised by the radical of the flight, the mind is just found to be filled up with these ever-shifting, hastily passing ideas and images, which never attain a stable form, much less the worked-up and systematic character peculiar to the erroneous conceits and the fixed ideas of the crazy; but, during their perpetual kaleidoscopic changing, they are connected through the pervading stamp of an elevated mood and a bright view of matters, such as is characteristic and natural to the radical of the flight. Where the processes take their course so easily, self-esteem and self-confidence are generated; and they consequently take the form of an exaggerated estimation of the individual's own person, and may grow into conceits of his own greatness of a passing and varying nature. The same phenomenon, although in an incomplete and far less excessive form, is also found in degenerative individuals with

accelerated cerebral processes. Here it manifests itself as the unbridled and unrestrictable love of boasting and over-estimation of self, the unreliable and easy-going handling of truth, as is usual with these persons, not with any evil intention, nor in order to gain undue advantages or to harm others, but solely as an inevitable result of the forced cerebral process and the accelerated tempo. And these boasts and lies may partly act directly detrimentally on the surroundings, in the first instance, and create false and unreal conditions; partly there may from them, as from every false starting-point, radiate impulses and effects of far-branching and incalculable extent. An individual of this sort, whose cerebral processes, as is characteristic for the radical of the flight, always work on the surface, never deeper, so easily originates loose and swarming rumours, while the criticising and sifting process which should separate the tares from the wheat, truth from untruth, is so easily left out; and such untruthfulness becomes just so much the more dangerous as it cannot be referred to any conscious will or intention, but is lost in the unrecognisable and incomprehensible. And a wrong conception and representation, founded on irregularity of time, may pass into tradition and displace the record of the actual relations in such a way that perhaps it becomes very difficult to restore it. It is probably not easy to prove how, for instance, historiography may be affected by such conditions. Complaints have sometimes been heard as to how outside circumstances assert themselves in this respect; for instance, what effect it has had on the historiography of the Middle Ages, which was altogether entrusted to the hands of the Church and the clergy; but as regards this, there is yet perhaps a possibility of correcting and criticising the result. But, supposing the cerebral processes of the historiographer to have been of an abnormally hastily and superficially working quality, be he in himself ever so impartial and wishful of being fair and just-and such amiable qualities are just peculiar to the sanguine temperament—how far more helpless do we not stand in the face of his results when he himself has long ago disappeared from memory and comprehension, and has only left his own blurred views in his work! Here

posterity stands helpless, because, indeed, such an individual peculiarity does not, as a rule, point beyond the limits of possibility, or even of probability, yet is very well able to displace the image by bringing it under visual angles which give a distorted result; and from this, perhaps confused rays and lights again radiate back on the single factors, be they persons or events, which are the objects of the description.

Another movement, which may also result in untruth in such individuals, is the manifold collisions with the relations of life into which they so easily permit themselves to get involved, on account of their hasty and ill-regulated cerebral processes. In order to clear themselves from these, they are constantly obliged to use those means of defence, which are nearest at hand, and which they, owing to their imperfectly developed reflection, must take as they come. In the heat of the battle all arms are good, and it is incredible what illogical and hasty arguments such a person may have recourse to in order to clear himself out of a difficult situation. This is also a form of unconscious untruthfulness-and besides those few instances which I have mentioned, there

are surely many others which may serve to illustrate the case.

I have dwelt so fully on the radical of the flight—the flight of thought, as the phenomenon has been named in psychiatry—that I may therefore pass more lightly over the corresponding conditions of the other radicals, which are, however, in no way less characteristic than here. Also in the restriction, the contrast to the flight—but, like the latter, an indubitable fact of existence—it is a question of what I have described as a tempo degeneration; by other paths it leads to quite corresponding results. As it may be very difficult to one brain to accommodate itself to, and get into touch with, another brain which works at a faster and more forced time than the former, the same may be the case in relation to a brain which works at a more slow and sluggish rate. An anecdote is told about a physician in Copenhagen, very well-known in his time, who during a consultation interrupted one of his patients with these words: "Might I ask you to speak a little faster, else I shall be unable to keep pace with you." It is easy to try it for oneself. When reading a book

from olden times-I am thinking of a few centuries back; of those times whose reasonings and argumentations move along with solemn slowness at a venerable amble, far removed from the, on the whole, fast cerebral processes of the present day, but yet a natural and spontaneous expression of the rate of thinking of a bygone age—one may perceive a real bodily feeling of displeasure. I once heard a patient in simple good faith express a phenomenon closely related to this by "nausea of the forehead." One kicks with impatience against the slow progress, involuntarily one hurries forward in the reasoning, but is obliged to again force oneself back, often so much the more as there may be just in the slowly and gradually advancing chain of thought something that captivates and interests, as being an image of the characteristics of the times gone by. And even if this may lend to the reading a certain peculiar interest and charm, it yet gives an unpleasant feeling to be obliged, in addition to mastering the new matter, to force one's cerebral functions with an effort back into an unaccustomed, tardy rate of working. One may notice a similar phenomenon during the performance of a play, when the actor, as it happens not very infrequently, takes pleasure in playing a part in a slow and solemn tempo, underlining and emphasising chains of ideas in the speeches for the most part comprehensible in themselves. Nothing appears to me more destructive to the attention of the audience than such a painful holding back and tardy restriction of the accustomed and natural movement of the modern braindoubtlessly far more disturbing to a brain of our time than the opposite phenomenon, where we may also, it is true, feel strained in having to follow too fast and forced processes, yet it is not felt as being so unnaturally reactionary, as having to force oneself back to the slow mental progress of bygone times.

A thus restricted and protracted movement in the appropriation and assimilation of the matter may, where it occurs as a peculiarity in the disposition and development of the individual, also cause a really crooked and distorted comprehension and appropriation. It is one of the most prominent characteristics of the psychiatric radical which I designate by the name of the "restriction" that, when

developed into a distinct form of disease, such as melancholy, it impresses on all the attending cerebral processes a stamp of fatigue, of resistance to be overcome, and that this is again attended by a distinct feeling of unpleasantness; and, further, this feeling is of necessity projected from the cerebral work itself on to the object under treatment. As the radical of the "flight" imparts a light and sunny aspect to the object, because all processes are working so easily and pleasantly, so it is here the reverse. And, frequently, such a heavy and dark apprehension asserts itself in a corresponding manner in individuals who stand outside the boundaries of mental disease, yet are subject to restrictive tempo degeneration. Whether, from small and subordinate relations, it extends upwards in the form of distorted and bitter views and judgments based on these, or whether, from a more exalted stage of life, it weighs on subordinates and dependants, its influence may be oppressive and pernicious. Only think, in history, of such a figure as Philip II., descendant of a great and richly talented, though mentally diseased family, and who all through a long life maintained his position as a mighty

ruler, but, through his heavy and gloomy disposition, became an oppressing burden over the great realms and countries over which he held sway, and restrained all vigorous and natural intellectual life at a time when the world had just started to make headway after the quiet slumber of many centuries.

And as with the radical of "the flight," so it is here also a case of untrue apprehension, of recollective images that are too dark, and pass into the consciousness of the individual with crooked and distorted lines, so as, according to his place and rôle in society, perhaps again to form the starting-point of other distorted images and crooked lines. As it is with the apprehension, so also with the appropriation and the assimilation; the whole psychic process of assimilation gives, under the influence of restriction, an acrid and bitter taste to the assimilated matter, which may frequently be traced out into wide circles. These are the people who have got a splinter of the broken mirror into their eye or their heart, as Hans Christian Andersen has it in his well-known fairy tale.

While then the "tempo" degeneration, in its

double form, pretty well covers the old wellknown terms, the sanguine and the melancholy temperament, nothing corresponding can, as mentioned before, be found as regards the third radical, the "weakering." But the phenomenon is not any the less beyond doubt on that account. When it appears in life in its form of stunted degeneration, it is the weakened power of apprehension and of assimilating the matter which characterises the state. We have here to deal with the light, superficial, loose, nonsensical cerebral processes, as one so frequently meets them in every-day life, the blurred image of recollection, inaccurate in its lines, clouded in its colouring. It follows as a matter of course, implied indeed by the very words without any farther explanation, that such an image, in itself unreliable and uncertain, must in its wider extension through the relations of life give rise to confused and irregular results. Look at the turmoil in the house of a fidgety man; and what confusion and disturbance of life may not a muddled, absent-minded, ill-regulated demeanour and speech of a leading man cause, whether in private or public life! From such

blurred images of recollection the effects then spread out into life, and cause unclear and incomplete ideas to spring up, which it is perhaps not possible for the receiver to control and criticise because he has not the key to their true interpretation. And, as with the apprehension, so with the logical treatment of the matter; in passing the flaccid and unequally working cerebral mechanism, it only succeeds in emanating therefrom in a still more confused form. There is hardly, in this connection, any other phenomenon which occasions so much unconscious untruth as does this one.

The fourth radical is the "erroneous conceit," which is outwardly characterised through the inclination of the individual to move along certain fixed, ever-recurring tracks, causing the phenomenon which is commonly named "monomania" or "fixed ideas." Developed into the form of disease properly corresponding thereto, which is named "craziness," it ordinarily passes through this peculiar process, that at first it manifests itself in the belief that one is being injured, or, in the more pronounced cases, a victim of persecution, later passing on to conceits of over-estimation of self or

megalomania, yet without the ideas of persecution disappearing on that account, but they either occur simultaneously, in logical connection with these, or sometimes more periodically alternating with them. Quite the same fundamental features are seen to reiterate themselves as a phenomenon of degeneration outside of the actually mentally diseased class. This state corresponds pretty closely to what has, by a popular, time-honoured name been called "the choleric temperament." This is just characterised by the strong self-esteem of the individual's own person, the pronounced feeling of "I myself." The individual carries everlastingly his own self on his back, so to say; can never free himself from it, can never forget it, as he normally ought and should. Every impression, even of the most universal, altruistic kind, is spontaneously referred back to the one tiny self of the individual; is, on account of the peculiar state of the nervous system, conceived with a peculiarly delicate sensitiveness, which easily causes its being felt as a psychic sensation of pain, thereby acting on the whole conception and appropriation in such a manner that the outcome

is, if not the pronounced conceit of persecution, yet a sore feeling, which is again translated into insult, injury, indignity, neglect or any other name that may be chosen from the occurrences of daily life. These strongly impressible and sensitive natures are, as everybody knows, to be met very frequently in life under manifold varied forms. And, as in the fully developed form of disease the conceit of persecution in course of time becomes allied with, or transformed into, the megalomania, so likewise here. We do not here, as in pronounced craziness, meet with the excessive and senseless conceits, which make the individual imagine himself to be God Almighty, or a king; yet it is the incomplete indication of the same psychic process. Corresponding to the degenerative form of imaginary injury and insult, we meet a similar form of self-assertation. self-esteem, a more or less pronounced inclination towards putting oneself forward, etc.conditions which frequently make the situation of the individual difficult. Also variations, such as suspiciousness and jealousy, which are so frequently met with in degeneratively disposed individuals, come under this head. It may.

indeed, appear to be almost self-evident that this radical, in its conception of the various phenomena of life, is even particularly easily liable to errors of judgment, to put matters under a false light, radiating from its own self-filled atmosphere. It is, indeed, just the typical erroneous conceit which stands as its psychiatric paradigm. The same may be said of the treatment of the material inside such a brain. In the developed mental disease it is just in this connection that we speak of the erroneous ideas being "systematised," i.e., being brought under the power of the false light, and transformed under its influence. The same inclination is also found here; the material, which is apprehended by the distorted mind, returns from the crucible in a distorted form, shaped according to the pre-existing mould, and thus becomes itself the starting-point of distorted transformations and perverted views in all directions.

As regards the last of the radicals, the "coercive conceit," it belongs, as has been said before, to the more recent acquisitions of psychiatry, and has therefore not left any residue in the old popular theory of the

temperaments. Yet it is surely beyond doubt that the phenomenon holds also in this connection its own particular place. There are people, and they are met with pretty frequently, who are governed by such a coercive bondage of their thoughts and actions, and who are characterised by such uncertainty and doubt, that it impresses all their actions. It is this case that has been already popularly characterised in the old nursery-tale of "The clever Elsa," who comes to a complete and helpless standstill at the thought of what might perhaps happen at some future time if she should get a son, and he should happen into the same cellar where she is now drawing a jug of beer, and the cramp-iron that happens to catch her eye should fall on his head-and who remains in her helpless perplexity until the beer overflows the jug and is filling the whole room. History also offers instances of such bondage of thought and action; thus, when King Christian II., of Denmark, after the denunciation of the Lords at Vejle, sailed, in a dark night, eleven times forwards and backwards across the Little Belt without being able to come to a decisive plan and resolution, it was

surely because the ever-arising counter-thought had constantly and coercively taken possession of him and lamed his will and power of action. And it is surely beyond all doubt that such unfree adhering to and dependence on an abnormal cerebral process like this both give rise to a perverted and darkened comprehension of matters, which manifests itself through the thereby caused unfree actions and whole manner of life of the individual.

I here take the opportunity of inserting a couple of remarks. One sometimes sees the theory upheld that the developed disease is principally to be considered as a further evolution and development of the germ, which—as mentioned—should be inherent in the person previous to the commencement of the disease, so that the disease proper should be only a natural result of the peculiar innate disposition of the individual. Thus the melancholy temperament should, as a disease, develop into melancholy, the choleric be the foundation of the form of disease of the erroneous conceit, craziness. I distinctly believe that this is not the case. Experience appears to me to contradict this. A cholerically disposed person

may, for instance, just as well be seized with melancholy or mania as with craziness. And it is my belief that this phenomenon may find its explanation in the fact that the developed mental disease—as regards its form—is, as a rule, not determined by the fundamental cause, if I may so call it, but by the accidental (procatarctic) cause. Be that as it may, I shall not here enter into a closer argument of this view of mine, which has been evolved through many years of study of the question; that would carry me too far away from my present subject. But I shall continue the line yet somewhat further forward. Even in our days one hears not infrequently the assertion, not only from laymen, but even from medical men, that it is impossible to draw a distinct line between what is to be considered as mental disease and what is not. I think this is really connected with the above-mentioned misunderstanding; peculiarities, irregularities in the disposition, are confounded with disease in the proper sense. Of course, the views as regards the position of the boundary-line of disease change in the course of time, and quite right, too. What we nowadays include under the

head of mental disease does not quite embrace the same category as it did a century or so ago, or as it will do when another fifty years have passed away. But each period has, and ought to have, its fixed boundary-line of what is, and what is not, disease. Of course there may, at any time, be open questions of a certain kind. about which there may be contention; but, indeed, all evolution in the world depends on this. And what sometimes makes it difficult to judge of the true relations is this, that mental diseases may for long periods pass latent, so that it requires observations for a long time to determine the description and nature of the disease, a condition that is not always so easily carried out; yet, as far as this goes, they are hardly different from several other diseases.

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I shall now pass from the investigation of the degeneration, as it manifests itself in the single individual, in order to glance at its importance to the life of the common great social relations.

The human race is at any given moment composed of three layers. In the middle lies the strong and firm layer, which represents the level attained by the period. It contains the best and most solid material, and shows the standard of development to which society has reached at a given moment. In these individuals the brain has attained to the highest degree of perfection which has as yet been reached in this world. The family is at this point like a fortified town, which has "subdued the earth," to use the words of the ancient promise; firmness, clearness and self-respect are its characteristics. The great majority of the individuals who have gained citizenship within its walls are perhaps living there only half-conscious of this fact; they are living securely and confidently in the place which the family has gained—they people the houses and till the ground. Others, and fewer, form, as it were, the firm walls, which protect and defend the place once conquered; their strength is exercised and increased in the continual strife to defend the goal won. These are the strong and reliable brains inured to labour. But above the whole city rise the tall towers

and spires, whose tops, even, perhaps vanish amongst the clouds. These are the few great brains which tower above all the people, even the most richly developed, and in whose cloudwrapt pinnacles the future is evolving through ideas as yet incomprehensible to all others, perhaps not understood in all their compass and to their whole extent by the thinker himself, because it is reserved only to futurity to make it clear. But beneath and above the fortified town which marks the latest and highest acquirements of the race, there are other layers. Beneath it lies the deep and infinite layer of the mould of the substratum, out of which the families of the future are to develop and grow, until by-andbye they grow sufficiently strong for conquering the high places, but who are as yet in an embryo state. For a long time the family remains earthbound in the subsoil; slowly only does it lift its head and look around, until, strengthened and nourished by the multitude of impressions, it grows great and strong, and, through progress and struggle, takes possession of the fortified town as its inheritor. But above the latter, the nebulous world of the

degeneration gathers as clouds in the sky. These are in part the old decayed families, in part those who have, during the course of life, been hit and beaten. In its most dissolved form this group has already evaporated as useless vapours; but in its milder forms it is still illuminated by the daylight and the sunshine. It is no longer the human form in its firm and well-timbered frame, such as it appears in the healthy and robust individual who still stands in his full working power; but it is man in his state of dissolution, where the individual form is characterised by an apparently accidental and fortuitous mixture of superannuated abilities and powers, which cause the infinitely changing variation of the images. As long as the family is advancing from the substratum towards struggle and conquest, and as long as it, when at its climax, defends its firm position, it still wears a uniform; when passing into the dreamy world of the degeneration, it doffs this, and surrenders itself to chance.

Now, if the actual relations were really so systematic and straight as I have sketched them in this summary—which, however is true in its main features—viz., that one generation,

comprising all its single individuals, drove the previous generation before it, so that every family raised itself out of the substratum to a culminating point, in order again, when the cerebral power of the family was used up, to evaporate into the clouded sea of degeneration, then it would be more easy to follow and value the course of life than it is in reality. But here an infinite variety of exceptions and shadings obtrude themselves. And one of the most important reasons is probably this, that far from all of the individual families attain to the full normal maturity, the high point of development, which should, according to the natural order of things, be its proper due. In numerous cases the process of destruction asserts its pernicious influence at an earlier stage of the development of the family, while yet in the dim dawn of the substratum. It is just in this connection that such features as those previously mentioned—the mentally diseased, the alcoholic, and the epileptic degeneration, besides probably numerous others, of which I have no knowledge and no opportunity for investigation-come into question. A passing illness, which affects the cerebral organism

secondarily, a contusion of the skull, an unfortunate inclination towards alcohol or other poisonous indulgence, perhaps only a single passing intoxication happening at one special fatal moment, might be sufficient to drag the brain away from its fixed seat and its regular functions thereon depending; and this may then through inheritance pervert and distort the cerebral life of the descendants, and prevent their ever attaining their full rights. Assuming this to be correct, it is easily understood that the result of such process of perversion in the highest degree depends on at which of the infinitely multiple stages of psychic-or let me rather call it cerebral—development, the destruction strikes the family. When such a destructive influence makes its violent attack at an elevated stage of the fully matured families, it is, one might say, no less tragic than where it strikes the immature brains; indeed, to a human point of view, it may even appear more sad to see the perfect work of art, to the rank of which the human figure may be said to have risen at this point, broken and smashed by the devastating power of the degeneration. Still, one may here see this

peculiar phenomenon—speaking not only figuratively, but actually—that the single pieces and bits into which the whole has been scattered may testify to the high standard to which the individual has reached before being destroyed. But when the degeneration strikes the still raw and unprepared substratum, it may wreak far more violent damage, because the chance pieces and fragments, thrown amongst each other in chaotic disorder, are frequently of such a hardness and jaggedness that they, when they assert their influence on society, cause a very great amount of damage and confusion. These are the figures the outlines and peculiarities of which I have sketched under the mentally diseased, the alcoholic and the epileptic degenerations, and which—at any rate until they have been made harmless within the walls of the lunatic asylum, the workhouse, or the prison—spread dread and terror into human existence and the great social community.

"Nature, Universe, Destiny, Existence, howsoever we name this grand unnameable fact in the midst of which we live and struggle, is a heavenly bride and conquest to the wise and brave, to those who can discern her behests and do them; a destroying fiend to those who cannot"-says Carlyle, looking, indeed, at existence from a somewhat different—if I may say so, rather moral-standpoint, yet in reality hitting the bull's-eye of truth. For "the wise and brave" is no other than he who views matters freely and clearly, straight in the face, who draws his conclusions, in sharply defined and straight lines, from what he has seen, and who shapes his actions conscientiously and confidently over these results; in short, he who has his cerebral organism in the most complete and best order. To him life is a festival and a conquest. Misfortunes may, of course, meet him from outside and darken his sky; but even these he is able to take into his consciousness and appropriate as links of his reasoning and his comprehension; within his brain they are transformed from incidents into moral views, from "fate into idea," as an antiquated expression has it. The reverse is the case with him who "cannot discern" the behests and laws of nature, because he, in consequence of his disposition, lacks the qualifications for this; to him nature and existence become "a destroying fiend," who entwines and crushes him in his mighty embrace. For—as Carlyle further has it—existence is a "conquest" for which we "struggle"; all life is a contest, where the victor becomes the master, the vanquished a slave.

It goes without saying that the aspiring substratum of the human race must struggle in order to continually advance further; no words need be wasted on that. And it is only natural, and a matter of course, that the victorious section of the race, to whom the contest has already long ago become a pleasure and a play, must always continue the struggle, partly in order to press further onwards in the path of evolution, partly in order to hold its already conquered position against the new crowds who are ever pressing forwards. That is just the meaning of life. But it might appear less necessary that the world of shades of the degeneration should also carry on its passionate struggle for existence, seeing that it has already fallen out of the ranks of the combatants proper. It is, nevertheless, certain that it does so. And it could not be otherwise, seeing that the fight does not depend on free will; it is the spontaneous reaction of the

brain against all impressions and impulses of existence, which asserts itself through action, and from which, therefore, no living organism is able to emancipate itself. It is, then, this struggle of the degeneration towards asserting itself, its particular fight for existence, that I am going to make the object of a brief examination.

The wars of our own age have clearly proved to us that the battle depends on the weapons. And, as I have repeatedly said, in the great battle for existence, of which I am here speaking, and where the cerebral organism represents the weapons, this holds good to an eminent degree. The one who musters with the brightest weapons, the most powerful, and the most strongly developed cerebral constitution, has the absolute advantage. The object of the battle is to every man to assert the force of his own individuality, to uphold a free position amongst his surroundings, and to lead them where he feels that it is safest and best to live, to bind them by laws under which he believes they may live the securest and the happiest; otherwise, to subdue and vanquish them, make them subservient to his will. In

this fight, which repeats itself throughout, from the smallest and most intimate, up to the very greatest, relations of life, all resources are at the disposal of the healthy and strong cerebral organism; in his hand compliance and resignation may be as powerful a weapon as force; he is able even to solve a so complicated, and in itself contradictory, problem as to die gladly in order to gain his victory. Hence his irresistible power.

The case is different as regards the degenerative individual. For him also the struggle is, as already stated, inevitable—if possible, even, still more so than for the normal man, partly because he would otherwise unavoidably be put out of the running in the great race of life; partly, also, because he, in his own deficient ability, lacks the qualifications for being able to appraise himself, to know and estimate his own limitation, and thereby to practise the delicate and difficult art of resignation. Dwelling, temporarily, on the three first groups of degeneration, the mentally diseased, the alcoholic, and the epileptic, I must say that existence as a rule is hard on these individuals, because those around them-at any rate, the

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wider circles of these, lack the qualifications for understanding their peculiarities, their failing abilities, and their aberrations from the straight line, and are therefore unable to make the merciful allowance for them which would be necessary in order to make their lives easy, while, on the other hand, they themselves are quite devoid of any comprehension of their own calamity. Therefore they feel obliged to retort the more strongly when it is a case of asserting a place for themselves. Having no ear for the calm and even voice of logical argument, they must resort to trying to drown it, to shout loudly, in order to make themselves and the world believe that they have right on their side; and in this way they may actually succeed in gaining a quite transient and momentary victory. In the epileptic degeneration, this blind and indiscriminate eagerness to fight manifests itself in the most appalling manner, as a quite uncontrollable surrender to their passions. The blood rises into their eyes, and they conjure up before them red flames and sanguinary visions, and under this demoniacal influence they, in blind fury, rush upon their prey and break out in murder and incendiarism, until again,

when the passion has been appeared, they collapse into torpid apathy. In the alcoholically degenerated, the case is a corresponding one, only the manifestation is different; here it is not the absolute blindness to all higher powers of existence, it is rather an intense deafness to all the more refined and ennobling voices which speak to us from all surrounding nature. They comprehend only coarse impressions and forcible applications, and in their eagerness to assert themselves and in their fear of allowing themselves to be trodden down, they then spontaneously have recourse to their only adequate weapon, brute power. Club-law may be designated as the symbol of their ability to assert themselves within existence. As regards, finally, the third group, the mentally diseased degeneration, the case is, perhaps, a little less clear. I have said above that this degenerative group is more dependent on the personal relations and life of the individual, but that there is yet a particular form through which it comes into connection with the surroundings, that is the group of diseases which has been designated "moral insanity," and which encompasses a class of individuals who are justly characterised

by their indomitable craving and their unconquerable struggle for asserting for themselves a place in life which is not at all due to them, on account of their inferior intelligence, and their whole deficient ethic standing consequent thereon. But these are the people to whom may be applied the words of Shakespeare: "My weakness is my strength," seeing that just their innate weakness in reality renders them quite unassailable and invincible. Their almost absolute want of logical and critical sense gives to their arbitrary and hazarded postulates, such as are, in the heat of the contest, propounded regarding the situation in question, which they are anxious to maintain, a force and an impetus in the face of which even the most refined and sharpest reasoning is perfectly powerless, because they are spoken quite at random. Any kind of argument absolutely glances off them, because they do not understand it; they meet it only with their own individual longing and craving for asserting themselves, restricted by no valid bonds. It is—while it lasts—one of the strongest and most invincible positions to be found in the world.

I now leave the three first-mentioned groups

of degeneration, about whose weakness and struggle for existence I have no more to say as far as their chief characteristics are concerned, and am now turning towards the family degeneration proper, which I have ventured to designate the uratic degeneration. As formerly stated, its inheritance is of quite a different rank and importance from the worthless misery of the other groups, and it is therefore fully entitled to quite another place within the great social community than those. And its weapons, although in their innermost nature related to the former, possess a brightness and splendour which makes the aspect of the battle festive and beautiful, though it may result in the destruction and death of the families equally as much as the fighting of the other groups.

During the various ages the spiritual centre of gravity of the human race—and therewith its strength—has rested on varying psychic bases. During antiquity the gauge of the psychic power and ability was the force of the fresh apprehension, the comprehension and understanding of the facts themselves, the discovery of the human vital functions and of the great fundamental relations of life. The object was to understand

and master nature. During the Middle Ages it was the glow and intensity of feeling, the self-abandonment of enthusiasm and submission under higher considerations, which more than anything else aggrandised the individual in the struggle, and thereby shifted the centre of power. The mediæval device in the English princely escutcheon "Ich Dien" appears to me fit to stand as the motto of this period-even if it, in its manifestations, came gradually to spread itself right from the resignation of martyrdom into the violence of unrestricted passions. When then antiquity and the Middle Ages again met in the dawn of the Renaissance, the two moral views came to stand face to face as two opposing powers, and thereby the doubt and the choice was represented to the human mind; it became a question of taking up one's position in relation to the two main lines, and of reconciling them with one's consciousness. Therefore our times are still a period of consideration, of reflection; it is the logic, the good valid arguments, which, with their pro and contra, set the record. The primitive first-hand apprehension which made antiquity great lies so far back in the history of the evolution of mankind that

nowadays it plays a subordinate part; we do not any longer go into the fields to look for medicinal plants; discoveries in the field of the natural forces are now far more a result of combination and reasoning than primitive observation. We are, indeed, not quite so far removed from the strong and intense emotional and impulsive life, such as it characterises the variegated and restless mediæval existences, as we are from antiquity; but even the emotional nature has been, or is at any rate in a fair way of being, placed in the background as a power in life, as compared to what it used to be, and of giving room for the clear and well-founded judgment, the power of "the good reason," however many tricks it even in our days frequently plays us and by the force of lyrics confuses the straight lines of clear reasoning. The power which passion once possessed of moving matters and the world it possesses no longer; when not leaning against the background of "the good reasons," it may, it is true, ruffle the waters of life and thought as a passing storm, but it no more lays foundations-new tracks, new lines of thought are no longer based upon it. However dear and

beautiful it may appear to us as an inheritance from a grand and rich past, it has yet lost its legitimate peculiar position when not allied to the firm foundation of "the good reasons."

But all this, what is the meaning of it? Presumably nothing else but that the human brain, considered as an organism, has from antiquity and up to our days passed through an ever richer and more variegated evolution, so that continually new fields of its surrounding infinite sphere have been brought under cultivation; that new abilities and potentialities, which lay formerly in an embryonic state, have gradually, during the struggle with existence and its multifarious problems, grown big and strong. To our minds, indeed, the most recent stage of evolution has spontaneously presented itself as the climax of the maturity of the human race; yet, after our time new processes of development will probably arise, which will reveal new abilities and new powers, of which we have no idea, even if we may sometimes seem to catch a glimpse of the immediate future; I am here alluding to the first apprehension and the first faint traces of a power to command the unconscious cerebral life, as it has, in an anticipatory way, manifested itself in hypnotism, and which will probably, at some future time, attain to greater clearness and power.

And, as with the life of the whole human race, so also with the life of the individualone might say "of course," seeing that the individual is the prototype of the whole race. The man who is in league with the evolution of the race, who stands on the firm and safe ground of his contemporary age, and whose cerebral organism corresponds to the exigencies of his period, he is also sure to perform the most solid and best work. It would seem that justice demanded that this standpoint should be uniform and common to all men; yet nothing less is exacted as the chief condition than that each individual shall have received from his parents as an inheritance a faultless organ, and that he himself shall, all through life, have treated it with such respect and care that it does not point towards a deviating course, so as to lead the individual astray through its necessarily erroneous guidance. But, then, are such faultless cerebral organs to be found at all? Surely just as well as powerful

lungs, energetic digestive organs, and robust muscular systems are to be met with.

But the deviations are just as indubitable. And it is so arranged in nature that where the degeneration-of whatever kind it may beasserts its influence on the human brain and its functions, and through its destructive power undermines and effaces them, there it is always the most recent and newest acquisitions within the sphere of intellectual life which have to suffer; it is as if these faculties, which have as yet not been able to fix themselves, would be the most loose and the least reliable elements of the psychic organisation of the individual. It is therefore, in our times, just the reflective capacity, the carrier of "the good reasons," that is the soonest and the most strongly affected, and where the family meets its destruction. It is striking to see how this weakening asserts its influence everywhere in the sphere of degeneration. While the apprehensive capacity is comparatively unhurt and shows itself through the degenerative individuals' correct comprehension of the phenomena, and their good memory; and while the emotional capacity just asserts itself with unusual force, because it again, with

renewed vigour, as it were, usurps the seat of honour as being the last and highest stage of evolution of the human mind; and while both these factors, which have, through immeasurable ages, extended their roots deeper, so to say, into the whole individuality of man, unitedly assert their regained power, the dual work, the pro and contra, of reflection is weakened to a striking degree. But this relation gives rise to an incongruity. For, just as surely as emotional life has been, in bygone times, a ruling power of the highest rank, it can, nowadays, no more assert itself as such when attempting to usurp the legitimate throne of reflection, of "the good reasons." I have already hinted at this discrepancy when speaking of the three first degenerative groups, how the mystic passionateness, the coarse club-rule, and the senseless brawling take a prominent place in the picture of the struggle; I am now arriving at the more difficult relations of the fourth degenerative group. Here there is no question of pathological influences; the phenomenon is developed within the sphere of physiology. It is the old, decrepit organism, which gradually gets tired out and collapses, but which yet, on its downward road

from its climax towards dissolution, presents great and important contributions to existence.

Here it is, then, a question of the ripe fruit, which drops from its branch when its time has come. Like the tree, the family has its roots deep down in the ground. For a long period it lives only for its own sake, while growing big and strong. Then it spreads its branches sideways, and grows into a power which fills and gives shelter; and finally, at the climax of development, it bears its fruits, which are not for the benefit of the family only, but which give nourishment and refreshment also to others. How long does a family require for accomplishing this evolution? Of this the experiences gathered in an asylum give no information whatever; and I dare say it is, upon the whole, impossible to answer it. Searching back in the history of the old families, we meet them for the first time at the point where they have left the common lower stratum. and have raised themselves to a free and independent position. But, judging from genealogical tables, it is not of rare occurrence to find families who have lived through several centuries since this transformation took place,

and who are still continuing their course undisturbed. It is far easier to follow the decline, the process of dissolution, because this takes place with far greater rapidity; in four generations, the old rule says. The oldest families whose decline I am able to trace here from the asylum I can account for, at the outside, for a period of about a century and a half. Let me instance such a family. During the latter half of the eighteenth century it held a firm and responsible position in Danish civic society, especially in the public service, and was distinguished through prominent influence and wealth; since then it has developed into a large and numerous number of branches, and been allied to other families of note. Already at the point, where first I have some knowledge of its psychic constitution, there are indications of a degenerative sort, and later on it has more and more, during its wider course, lost its uniform and concentrated stamp and given room to a promiscuous variety of mental giftedness, amongst whom I-with my probably incomplete knowledge—am able to substantiate seventeen figures, twelve men and five women, who have distinguished themselves

through talents of their own in science, literature, poetry, painting and sculpture, music and dramatic art. But in the same generationsand in this respect I feel my knowledge to be even more limited because I have only certain information about the very latest generations-I can testify to at least ten persons who have been distinctly mentally diseased or weakminded from birth. And over the whole remainder of the family looms, like a shadow, the common characteristic, which manifests itself through the many various shadings as nervousness, hysteria, hypochondria, neurasthenia, etc., though perhaps never having brought the individual within the pale of actual mental disease. And I could mention several families similar to this one.

Now it might, perhaps, be said, that it is very difficult to prove, or even to state, what really constitutes a family. A family does not, like a tree, grow through a single trunk, but at every point of its growth it establishes cross connections, which are the necessary requirement of its further development. When, nevertheless, an indubitable uniformity and continuity of the habit of the family is preserved,

I have formerly thought to find the reason of this in the more individual relations-"birds of a feather flock together"-and I have frequently, during my work in the asylum. where one meets so many inter-crossing family relations, thought to be able to trace how individuals of similar and kindred natures sought and found each other on their way through life. People of a hot temperament are not satisfied with a cooler temperament in their mate. Now I am, however, looking at the matter somewhat differently, since I have learned to understand it as a link of the whole history of the evolution of the family. Here in life, mésalliances are comparatively rare exceptions, and it is consequently easily understood, looking at the whole evolution of the family, as I have attempted to sketch it, that the individuals look for and find each other at a fairly equal point of the process of evolution. And, seeing that this, as I believe, is not only characterised by psychical capacities, but also in reality depends on a bodily degeneration, in its various degrees and shadings, the result of this harmony and uniformity will not be elements counteracting and balancing each

other, but, on the contrary, working in conformity towards the same end. As a matter of fact, my experiences from the asylum also distinctly tend to confirm the correctness of this view. As a rule, old families ally themselves to other old families, and through the connection the course of the development is accelerated.

What is then the appearance of the descendant of the old family, who marks the turningpoint of its life? Here there is no question of the sinister figure, with the stamp of crime on his forehead; neither is he the brutal rowdy or the confused brawler, as in the other degenerative groups. Quite the contrary! It is even striking how frequently he bears the outward stamp of his ancient descent. His bodily carriage is frequently handsome and free, he moves with ease in life; a finely developed bodily and mental elasticity often give him a bright and winning character. But, as a modern author expresses it: "The family brain had been exposed to wear and tear for three hundred years; he consequently sat quietly, as an ideal listener and spectator, while himself lacking initiative and power of action" (E. Rasmussen; Frants). That is just the main feature of this figure, the handsomely and harmoniously developed body, and the failing, or at any rate irregular, brain power. It must be understood that the picture I am here drawing is as yet only the earlier stage of the retrograde process; but from this turning-point the road of the family gradually deviates until, little by little, it is lost in the obscurity of the degeneration, and effaced.

Following, then, the downward line, I comparatively soon come to the end in the disintegrated figures which represent the "Great Families" inside the walls of the Lunatic Asylum. I have mentioned that what gives to them their peculiar characteristic is the breaking off, or rather, the weakening-for in reality it cannot, of course, be a question of more than that—of the mastery of reflection, "the good reasoning," the faculty which we assign to the apparatus of association of the brain, where the matter, through treatment and consideration, is appropriated and assimilated, a special acquisition and field of labour of recent times. And I have also formerly pointed out that when this, the predominating power

of our age, loses its restricting and ruling force, then all the other faculties, which should be subject to its sway, will grow with an independent vigour, which should not, and ought not to, belong to them any longer. In reality, one sees in individuals of this sort the fundamental faculties, if I may call them so, apprehension and emotion, developed to an almost unlimited extent, which gives to the whole work of the cerebral organism a crooked and irregular stamp. When the apparatus of association is working with its normal power, the material—the several facts—is transformed in such a manner, the process of combustion takes place with such completeness, that only the results remain, while the fuel itself has disappeared; but where the combustion is incomplete, the raw material is left and retained as such. And it is really striking to what extent this may be the case. Such a brain may apprehend and preserve facts with a downright astonishing strength. I know, from the asylum, such individuals who have, even in an advanced age, where else, as a rule, the cerebral faculties are seen to dwindle and become weakened, preserved the full strength of their memory;

who have, all through their long life, never been able to live on a natural judgment or a healthy reasoning, but have been an easy prey to all casual impressions and influences, yet who have, in the course of their life, collected a formidable amount of uncriticised, promiscuous material of data and facts, and have faithfully, for want of more valuable brainwork, preserved and stored it, in order to bring it out during their idle hours and turn it over and over again, without any object, and for nobody's good; they go about like living encyclopædias, in whom one may at any time look up who was the father of So-and-so, and who was the godfather of some other nondescript, at what exact day and hour So-and-so was born, christened, married, died and buried, etc., etc. It may be a very striking phenomenon. I have known an elderly, comparatively lively and intelligent lady of this cerebral constitution, who admitted straight out that she had no idea what thinking meant; when she was not occupied with her work just at hand, well, then she either remembered the many more or less casual events of her long life, or told stories to herself, or recited poetry that

she had, once upon a time, learned by heart, and of which she knew an incredible quantity. But she had absolutely no notion of linking her thoughts together so that they might lead to conclusions and results. As the next specially prominent cerebral peculiarity of these individuals must be mentioned, as already stated, their excessively developed emotional and impulsive nature; indeed, it must even be designated as the most striking and most constant phenomenon in this connection, whether it appears in a refined and attractive form, or manifests itself through violent passion, unrestrained by reflection. On this the peculiar abilities and talents of these people in their higher forms may, to a great extent, be founded; but hence also spring the unmanageable and unrestrained impulses which so frequently become fatal to the whole current of life of these individuals, and which may easily lower them deep down into the lowest classes of degeneration. As the third characteristic mark of these figures must, finally, be emphasised their finely tuned and excessively developed nervous system during centuries, with the thereon consequent strong impressionability, a peculiarity which belongs to every unequal development of the functions of the central organ, and which at any rate only ceases late in life, when it gives way to the secondary weakening and dulness. They may be so sensitive, every impression may be so strongly connected with a psychic sensation of pain, that they feel their whole existence as a suffering; yet, in spite of this, they may also feel it as a happiness and richness, because such a finely developed sensitiveness towards impressions makes existence rich and variegated to them in a manner of which the more even and more normally developed organisms have no idea.

That on which they then rely as their leading and ruling qualities, their strength and their weapons in life, is thus the sharply defined apprehension of details, the harmoniously vibrating impulses, the fine sensitiveness towards impressions, and the lack of reflection. And, with logic force, the combination of these qualities consequently restricts them to certain limited fields of the sphere of psychic life. Where the reflection, the sharp, criticising deliberation, still holds the sway over the personality as the ruling faculty, other phenomena

are met with; then it is the strict logic reasoning, partly in its brightest form as pure science, partly in its more practical ramifications, as superior administrative capacity or special business abilities, which stand in the foreground. But down here, on the sliding decline of degeneration, it is the arts that we meet in their various shadings. To all of these the qualities which I have mentioned above are in common the easily susceptible nervous system, the sharp sensory apprehension, and the emotional, impulsive nature; indeed, it may be said that without these three elements there would be no art. Its essential parts are just to reflect the phenomena of life and deliver them again, dissolved and transformed by the innermost and deepest sentiment of the individual personality, while reflection—in contradistinction to what is the case in strict science—plays only a comparatively subordinate part.

These figures are comparatively rare in the world, albeit they may, at times, make a considerable show by their many conspicuous peculiarities. They constitute the minority, because they only appear within the few generations which mark the process of degene-

ration during a limited transitory stage of its progress. And their reciprocally great diversity depends on the individual mixture of the abovementioned fundamental features. There are those whose characteristic feature is the sharp and keen sensation; there are others in whom the fiery impulse is the criterion; and, again, some in whom everything is overshadowed by their easily moved impressionability, where lines and feelings get drowned, as it were, under the vibrating life of the surface. Of this, anyone may easily pick out his own examples. And the farther these individuals get removed from the normal, the farther downwards and outwards we follow the ranks, the more sharply these individual figures are marked in their variegated shadings, extending even into the grotesque. The common human uniformity is more and more replaced by the gratuitous, the capricious, the eccentric, and the extravagant. The subjectivity asserts itself to a great extent; the world assumes a different aspect to their highly strained view, which is only to a slight extent affected, by the levelling force of reflection, from that of the normal view.

But in considering this variegated collection

of peculiar phenomena, we have again a guide in what I have before denominated the "psychic radicals," which extend through the whole spiritual life of humanity as leading motives. Just here, in these individuals, released from the restraining ties, these peculiarities assert themselves with special force. Where the "restriction" holds the mastery, the phenomena of life take the shape of painful impressions, burrow into the depths and take root there for ever. In some cases we hear only a slow and mournful melody. In others, under the radical of the "flight," they represent, in their light and hurried skipping over the surface, a quickly shifting picture with variegated colouring, but of shallow depth. In a third class we only find the confused faculty of giving queer, muddled and disjointed images, which may yet, in isolated bits and fragments, be replete with a sensitive and suggestive beauty—this is the radical "of the weakening". And finally we meet, under the rule of the "erroneous conceit," the crude and distorted pictures for the understanding of which the outsider frequently lacks the key, but which may yet, through all their one-sided force, act with great power and impetus, because they may rule the artist himself with an equally unlimited and coercive sway as that with which the fully formed "erroneous conceit" rules the diseased organism. Thus, the whole of this apparently multifarious and heterogeneous degenerative group divides and classifies itself according to the same laws and lines which permeate all psychic life.

I may be allowed in this place to throw in a remark concerning the antiquity in human history of the comprehension of the degeneration-you may accept it as a testimony, or take it as a mere curiosity. In Exodus, Jehovah speaks these remarkable words: "I the Lord thy God am a jealous God, visiting the iniquity of the fathers upon the children unto the third and fourth generation of them that hate me; and shewing mercy unto thousands of them that love me, and keep my commandments." This is, word for word, the modern theory of degeneration; the development through a thousand generations means the progress for ever; and in contradistinction to this, the decline extends only through four generations-then the degenerated family dies out. But already

at a far earlier stage of the history of the human race the Bible teaches us the same. In Genesis, Cain and Abel represent, without doubt, respectively the apostate and the good branch. After having killed Abel, Cain is the exiled on the earth: "Behold, thou hast driven me out this day from the face of the earth; and from thy face shall I be hid; and I shall be a fugitive and a vagabond in the earth; and it shall come to pass, that every one that findeth me shall slay me." And when later on Seth was given to Adam to replace Abel, it was his progeny that came to be the longliving men, who continued the family and became "fruitful and multiple" on earth. It fills whole chapters to enumerate their genealogy; but about the progeny of Cain, only a couple of generations, after which they disappear entirely. And it is curious and worth noting that all that is recorded of this branch is that Jabal was the one who dwelt in tents—that means, that his name was connected with the art of architecture; that his brother Jubal was the father of all such as handle the harp and organ—that means the inventor of the art of music; and the half-brother

Tubalcain was an instructor of every artificer in brass and iron, i.e., the art of forging. Is it not curious that the modern theory, which has as yet scarcely reached to being fully understood, is, as it were, clearly set forth in the original primary sources; for about the progeny of Seth absolutely nothing is recorded which under any form connects it with art. And later on, the relations of Esau and Jacob, are they not quite conformable with the modern theory? The hairy Esau (and hairiness is just a quality in a man which modern times consider as a symptom of the theory of degeneration—in the Middelfart Asylum there are at present two degeneratively disposed individuals who have small hairy rudimentary tails) stands as a contrast to the clever and clear-headed Jacob. The sympathetic figure of Esau, with its warm and unselfish emotional nature, under the influence of which he good-naturedly allows himself to be cheated out of his birthright, and, later on, in the face of Jacob's prudent and well-considered behaviour, permits his warm-hearted childishness to run away with him, stands, nolens volens, in a far more

sympathetic and winning light than the hard and rational calculation; but, although even the heart of the ancient author himself appears to have been touched by Esau, yet there is no doubt but that it is Jacob's cleverness and clear-headedness which constitutes him the born ruler, the one in whom all the tribes of the earth shall be blessed. His prudence carries the family much further forward than the romantic, cordial feeling of Esau; and it is he who in the struggle forces from Jehovah the blessing: "For as a prince hast thou power with God and with men, and hast prevailed."

But after this interpolation, I continue my lines; the further one gets downwards amongst the ranks, and the nearer one approaches the final stages, the more sharply defined the peculiar positions on the decline of the degeneration become, as they are outlined within the precincts of art. For a time, through the first generations, the individual still keeps in touch with the normal development, his work is still closely allied to the great current, which in its course means the progress of the whole family; but then the degeneration goes

more astray, and takes to its own queer and special paths. It is continually the same characteristics which mark it, viz., the strong impressionability, the acute sensory apprehension, and more fluctuating impulsive nature. But they all grow more and more intensified. The nervous system becomes ever more and more sensitive and impressionable; where formerly the more vigorous and more healthy organism of the artist was able to grasp and master his material, and arrange it with a view to a distinct object, the case is now different. It is now the material that takes hold of and masters the artist, the weak figure devoid of resisting force, until he stands before it overpowered and unmanned; he is like the instrument which our fathers used to call the Æolian harp, on which the wind played whichever tune it pleased. And the material just comes to him with such a force because his sensory apprehension is so keen and refined, and as he lacks the organising and criticising hand of reflection to guide him, all impressions are summed up in a row, side by side, with a strong energy, and with an appearance of truthfulness such as could under ordinary circumstances only be imparted to him through actual hallucination. And who can say if it is not really a question of an, at any rate, very similar process within such a nicely tuned cerebral organism? And seeing that the recollected images are preserved with the same clearness, and the same stamp of freshness, as the new impressions, and that the reflection, which ought to discriminate between the essential and the unimportant, and throw away the superfluous, is lacking, the image is crowded by the rank multitude of details, in themselves without value and superfluous, which give the impression of a puppet-show, instead of the properly planned and arranged play. Add to this the fluctuating and flaring impulsive life, the sparkling and restless impressionability, where the leading and guiding lines of reflection are broken and confused in the flashing and rippled surface, compared to which the work of former generations appears to us to be cool and smooth-and you have the peculiar art of the degeneration, in all its weakness, yet in all its glory.

Thus, the retrograde line, which in the history of the evolution of mankind we designate

by the name of degeneration, adds to life an indisputable value of high rank. While the results of science at any time give the sure and unassailable proof of how far the human brain has progressed towards the great problem which lies before it at all times, viz., to understand nature, to gain clearness and insight into its multifarious and various phenomena and again to master them and—in practice—take them into its service. The task of art is different, having to take hold of and comprehend the human feelings in their infinite ramifications, and to record the history of their march through existence. Science is the comprehension with its everlasting primary thinking work, which carries the progress onwards from one station to the next. The relation of art to this is a secondary one, corresponding to the relation between feeling and reasoning; seeing that the feeling-I am here not at all speaking of senseperceptions—is nothing but apprehensions and thoughts which have gradually worked themselves into our blood and nerves, and have formed themselves into a fixed, a permanent part of our psychic individuality. It often happens that we are no longer able to account

to ourselves for their origin, or how they have become woven into our consciousness; yet they have come to form so ingrown a part of our whole being that we feel them as restfulness and pleasure, and that their being wounded and torn asunder is felt as pain. It may be agonising—on account of the effort it requires—to some people to acquire new ideas, to move their tents from one field of comprehension to another, as the evolution of life demands it and necessitates it; yet it is a different sort of pain, not only that of effort, but that of laceration, to tear oneself away from a feeling which has become a part of one's innermost being. But as, during the progressive evolution of humanity, one advances from one way of thinking to another, so one has also, as the progress goes onward, to tear oneself forcibly away from the habitual feelings; for every station on the road of the development of thought has its exactly corresponding secondarily developed reflection in the field of feeling, which entwines us closely and personally in its fine yet strong web, which fits itself to our whole psychic life so intimately and closely that we feel as if we could not

exist outside it or without it. It is the thoughts which have fixed themselves inside our psychic organism and spread their innumerable ramifications and sympathising vibrations through our cerebral matter, and in the form of habits, feelings, or emotions, have quietly settled down there. But thought hastens onward, as is its nature, and is eager for combat; feeling, however, suffers painfully by being torn away from its accustomed nest, and seeing itself homeless and unsafe till it knows where the new line of thought is leading, and what new fields will be offered to it for settling down and making itself at home in. Feeling is thus the secondary phenomenon, as compared to the eternal prestige of reasoning. And art, which, in contradistinction to science, has a secondary relation to life, does not create fresh movements or values, but reflects only, in a monumental way, life as it already is, although it may through its valuable manifestations—as thought-inspiring material and collective memorial pictures from past stages—again supply new matter for thought, and thereby secondarily contribute towards its further evolution and growth. It is not able to make any

progress by itself, it merely adapts itself to the world of thought, as the mirrored reflection of the various stages of development of the latter.

There can, however, I think, not be any difference of opinion about art itself as a power in life; only as regards its extremest left wing I would raise the question whether it has any independent and special value as a link of existence. And this must also, I think, be answered in the affirmative; its absence would surely be felt as a void. While the man of science is, in a different way, identified with his work, with his contribution towards the solution of a problem; while he is to a certain extent still the working hand-albeit even of the highest rank—of the great common workshop of life, and while his individuality plays a far more subordinate part, in the artist it is just his personal peculiar qualities which come to the fore. And the farther he moves out into the ranks of the irregular individuals, the more fortuitous the intermixture of his psychic faculties and powers becomes, the more sharply his individual peculiar position will be marked, the more he will be "unique." Professor Höff-

ding's words about Sören Kjerkegaard, that "he was not satisfied with being a link, he wanted to be a whole," may be applied to these apparitions. But even these individuals, while hastening towards the decline, give their contribution to life, which would, without them, be poor and monotonous; they are the people who make existence variegated and multifarious. Just as we would miss the twisting lines and queer colouring of rococo if we had not got them, in the same way we would be wearied by the everlastingly straight lines and smooth surface of life, if the multifarious variations of degeneration did not break them by their shifting phases. And from the many views and standpoints-on the one hand votes are collected and rehearsals are held, as it were, of the problems of existence; on the other hand they are distributed to and made accessible to many people who would not give them a hearing unless received just in this form. For, in the same way that each of these degenerative individuals speaks with his peculiar voice and his own particular accent, so also the special audience which he addresses hear and comprehend with their peculiar

quickness of hearing, which is equally determined by and attuned to their position on the decline of the degeneration. Every man is to a certain extent dependent on his particular standpoint and is able to fully comprehend only those who stand at the same point of development. It is what the Norwegian author Obstfelder expresses in the following—to most readers in themselves somewhat obscurewords: "And it was her deep eyes, those that he did not wholly understand, but thought that he would be able to understand if she could only solve the riddle of himself. He sat and pondered over whether it might be possible for him to open a peephole for them to look into his own particular world, the world which he carried innermost in himself, and which made him appear wrong-minded and 'queer' to those around him."-From this base the individual taste and sensitiveness towards the movements and the phenomena of the spiritual life of the period are determined. The ear is only tuned for congenial sounds.

In conclusion I shall in an example reproduce the picture of the degenerative figure

with all its peculiar bodily and psychic characteristics. I am borrowing my picture from the Italian author Gabriele d'Annunzio's novel Il Desiderio, the grandest and most ingeniously contrived description of disease I have ever come across. Point by point it presents the characteristics of such a degenerative process as I have just depicted here. And I choose this example so much more readily, as it has also its importance of being the testimony of a perfectly disinterested man. The author points out, as the essential features of the hero, of whose gradual degeneration the whole book treats, just the same three characteristics which I have mentioned above, viz., the almost morbidly sensitive impressionability, the mirror-like sharpness of the apprehension and the memory, and the ever-fluctuating, emotional sensibility which keep the mind in a continually swelling and receding motion which prevents it from finding rest and from reaching, through thought and reflection, a firm and continuous development of personality. As an expression of the nervous impressionability I shall instance the following sentence: "Psychically as well as bodily both were wonderfully adapted for feeling the most intense and most exceptional pleasures; unceasingly they, in their love, were looking for the highest, the most unimaginable, the most unattainable; and they went to such extremities that a peculiar dark uneasiness, even almost akin to repentance, might at times, even during moments of the most intense forgetfulness, rise up from the inmost depths of their being and forebode some indefinite retribution, an approaching cessation of their enjoyment." And the image grows more fixed: "And he never forgot these tones, nor his sudden pain, never the posture of this woman at this moment, never the lustre of the trailing satin, nor the least plait, nor the least shade, nor any little trifle of this brief moment." And now the intense sensitiveness: "So violent a trembling seized Andrew's body on so unexpectedly hearing this voice that he thought to himself: "I am going to drop down." And like these three promiscuously chosen examples, which might be added to infinitely, the book, throughout, from beginning to end, is an ever-varied treating of the same fundamental subject, which the author does not at all appear to have consciously chosen as the text of his song, but to which he repeatedly

returns, because it is really the guiding lines of the nature of the degenerative individual whom he has known and wants to describe. He has seized on his subject from the erotical sideand chiefly from this throughout-and carried it through with a knowledge of the subject and an energy beyond description. The hero is the richly and luxuriantly developed nature of the old race, whose characteristics he follows back for centuries, and which now blooms in this refined and over-cultured figure. The undulating lines and the subdued and finely modulated tints meet us from every page of the book; we notice it as often as a flower, a piece of silken stuff, a lady's dress, an old piece of embroidery, or the like, is mentioned, which happens frequently. The degenerative, morbidly sharpened sense is hurt by clear colours and pure tones; it has its complement in the subdued and mild transitions, which cling snugly to its delicate sensitiveness; hence the modern fancy for old, faded stuffs, the "old gold," in its soft, mild shading, which is more pleasing to the eye, and fulfils its artistic craving more nicely, than even the most weighty work of art, because the latter wearies the slow-working brain by making

greater demands on its reasoning energy, while it prefers the emotional but fatuous enjoyment of the harmoniously blended effect of colours, without being troubled by matters necessitating reasoning being mixed in. For Andrew is an artist-of course, one might say, seeing that he is just living on the smooth declines, where art has its home and fills up existence; art failing, nothing else is left. But he is not an ordinary working artist; he is too over-refined and delicate for that; his is an "artistic nature" in a general way, whose sensitive susceptibility and acute perceptions are little short of the marvellous, but whose producing faculty only at rare intervals manifests itself through a solitary sonnet, or a sketch of the hands of his darling; to whom music is as his heart's blood, and to whom art in all its ramifications is equally near; nearest, though, the decorative art, which, without calling for thinking, by adorning his rooms and his couch causes him a sensuous pleasure, which swells into the phantastic and permeates all his feelings and dreams. Art is to him only enjoyment and festivity; all his life is art: "One must shape one's own life in the same manner as one shapes a work of art."

But in art it is not the idea but the expression which interests him and fills him. Love is the motive power of all his actions; but it is not the simple, faithful, lasting feeling, on which one may base one's life; on the contrary! The moment his dearly-beloved leaves him for ever, he is immediately able to think of everything else, to dress with the most refined care for a dinner-party, etc. Love is merely an emotion which he cannot do without; art may have the same effect on him. In the sphere of love he is an expert, an artist, "something unique." "The reason of his power was this, that in practising his love he disdained no sort of simulation, falsehood, or lie." To him, everything turns into art, a kiss is a work of art like everything else: "So perfect was the union of their lips that those of the one seemed shaped so as to complete those of the other." In order to enjoy the sweet nectar the longer, they held their breaths till they felt near suffocation, while the hands of the one tremblingly touched the temples of the other. Such a kiss exhausted them more than the most violent passion. When their lips parted, they looked at each other with eyes swimming as

through a mist. And without a smile she said a little hoarsely: "We shall die." Thus one could continue to quote from this wonderful book.

But the poet leads it with a sure and firm hand where-perhaps one may not exactly say where he wants to go-but where it must, according to all consistent consequence, end-i.e., in destruction and dissolution. "Each one of these love affairs lowered him further." "The bodily possession of the chaste and pure woman seemed to him the most exalted, the newest and most exceptional treat attainable by him; and this room (adorned, as it was, with old church ornaments) appeared to him to be the most worthy for celebrating this festival, because it would intensify the peculiar feeling of profanation and sacrilege which ought, to his idea, to characterise it." "His deplorable craving for dissecting and analysing everything" finally brings him to acknowledge that "the law of his existence is comprised in the one word: Nunc. Let, then, this be fulfilled." This hits the case exactly in the centre; here lies the real punctum saliens. The degenerative individual, who has reached this point of evolution, only lives for the moment. He stands without any connection with, without any responsibility for, either his past or his future. All his vital power is invested in the present moment; therefore it acts so intensely and strongly because unrestrained by any considerations, any reflections.\* Its weakness is its strength, but its strength is equally its weakness.

This grand and splendid record of disease, equally admirable for its thorough understanding and for its uncompromising analytic description, which, under the guise of a work of art, depicts a human tragedy based on one of the fundamental relations of life, thus describes the degenerative disposition right to its central core. But from this point the lines run steeply downwards with headlong speed, until they shortly end in mental disease, or inside the walls of the Lunatic Asylum. Here we meet the irresponsible, dissolved existences, as seen at their final stages. They are characterised, not so much by the diseased process itself, as by the irresponsible, invalid disposition. Sometimes it is the strong impressionability that, with irresist-

<sup>\* &</sup>quot;A brief Outline of the most important Groups of Mental Disease."

ible power, rules the case, so that it assumes the violent impulsive character; at other times, it is the emotional life which, lowered and brutalised, submits to the impulses of the lowest instinct; then again, it is those poor individuals who, mentally blind from their birth, without any comprehension of the idea and inner coherence of life, stumble about, occupying themselves with their accidental heap of worthless facts. As already said, it is weakening, rather than disease; the fundamental lines are the same, but they no longer appertain to life, but to the Lunatic Asylum, and thus fall beyond my present subject.

But is then, now, this whole scale, from the normal, through the exceptional, down to the dissolution, a real fact, and not merely a metaphorical explanation of relations of which we lack the proper understanding? I believe it is. And I here return to my idea of the uratic degeneration as the connecting link and the fundamental characteristic of the phenomenon, which I have, from the point of view of the alienist, denominated the "Great Families." I consider it possible that this process, which is a consequence of the weakened combustive

powers, and which accumulates matter as residues in the organism, acts as a degeneration of a chemical nature, less pernicious than the violent processes of the other groups of degeneration, rather transforming than destroying, and that this transformation affects the brain in such a manner that the latter is, from the strong and straight-lined organ, gradually changed into a more limp and irregular mechanism, which finds its psychic expression in the qualities which we denominate fancy, feeling, emotion, etc. What speaks in favour of this idea appears to me to be the fact that when we follow the line further downwards, to the individuals who in the asylum represent the actual pathological influence of the uratic degeneration, we find just in these the indication of the same characteristics which mark the higher forms of degeneration, the lack of energy, fantasticalness, the unrestrained emotions, the dreaming, the coerciveness, etc., etc., only all in a more distinctly marked morbid form. Furthermore, it is not a very rare phenomenon to see both the degenerative giftedness and the degenerative mental disease united within the same cerebral organism.

This, however, must be left standing over as a hypothesis. But, from all these relations, something else may be learned, and that is the extremely great difference there is between all men, and which depends upon their place in their particular natural ranks. One is to a certain degree in the habit of considering the human race en bloc, as composed of an infinite number of approximately uniform individuals, who have, on the whole, entered existence under similar conditions, who fill similar places in life, and to whom similar demands may be made. This is, of course, to a certain extent true, in so far as they all fall in under the ranks of homo sapiens. It is yet no less true that every human being, every individual, has his own qualifications and, depending on these, his own particular position, which is, perhaps, never identically the same for two individuals, any more than two faces are ever exactly alike. Whether he inhabits the level substratum, or he has attained to being an inhabitant of the fortified town, or whether he has, finally, settled himself on the sloping hillside, in order, as a spectator, to look at the variegated world; whether he is a healthy individual, in possession of full vitality, who has, through his ancestors, passed through the normal course of life, or whether he has broken off halfway and been, as a victim to the disease or the errors of his ancestors, thrown out of his natural place—all this, and much more besides, constitutes the infinitely varied image of the single individuals, who have yet all, everything considered, their origin out of the one and common race of which all form a part, but none the real substance.

THE END.

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